

**Marx at 200 – Inquiries into the Measurement of Profitability and its Determinants:
The US Economy, 1950-2016**

by

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ABSTRACT

Since the 1950s, various Marxist political economists have confirmed the empirical actuality of the ‘law of the tendency of the rate of profit to fall’. While the present thesis contributes to the burgeoning body of empirical literature that has substantiated Marx’s law, it differs from many of them in the underlying theoretic-methodological specifications guiding how the data provided in the national accounts should be *translated* for purposes of empirical research. Informed by a theoretical, methodological and empirical survey of the relevant literature, this thesis engages in a value-theoretical re-specification of Marx’s fundamental value-ratios for purposes of ‘testing’ Marx’s most crucial historical forecasts in relation to the concrete post-war evolution of the global epicentre of “advanced” capitalism: the US economy. It suggests some innovative methods of measuring ‘systemically necessary unproductive labour’, the ‘composition of output’ and economic growth alongside Marx’s fundamental value-ratios: namely, the rate of surplus value, the organic composition of capital and the average rate of profit. It also proposes a unique normalizing procedure for distinguishing between components of financial profit resting on surplus-value production from ‘fictitious’ components deriving from relations of credit/debt. This ‘normalization procedure’ permits a more realistic assessment of the amount of actual surplus-value transferred to finance, and therewith a more accurate calculation of the average rate of profit for the social capital as a whole in the “era of fictitious capital.” In sum, the empirical results disclose a long-term tendency for a rising composition of capital to exert a downward pressure on the average rate of profit – a tendency that has been offset in the neoliberal era to some extent by a rising rate of surplus-value (exploitation) and by a proliferation of fictitious capital imputed in the national accounts. Accordingly, this study confirms the empirical actuality of Marx’s most crucial historical forecasts – most notably, his

law of the tendency of the rate of profit to fall – while also revealing the systemic roots of the deepening malaise of the US economy and of world capitalism as a whole.

Key Words: value theory; rate of profit; capitalist production; fictitious capital; crisis

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There is no royal road to science, and only those who do not dread the fatiguing climb of its steep paths have a chance of gaining its luminous summits.

– Karl Marx (1867)

Table of Contents

Abstract	ii
Acknowledgments	iii
Introduction	1
The Road Forward: Political Economy, (Critical) Sociology, and Marx	8
Outline of Chapters	11
Chapter 1	12
The Point of Departure: Marx’s Philosophy	12
The Materialist Conception of History	14
The Road Less Travelled: Marx’s Value Theory.....	16
Theories of Crisis and Marx’s “Famous Law”	25
The Countertendencies.....	27
Chapter 2: A Theoretical Survey of Various Issues in the Field of Marxist.....	31
The Average Rate of Profit and the Social Capital	32
The ‘Era of Fictitious Capital’	32
The Concept of Fetishism in Marx	40
Productive Labour as Something Beyond ‘Physicalism’	41
The Specter of the Okishio Theorem	42
From Commodity Fetishism to Capital Fetishism	46
Unproductive Labour in Marx’s Theory.....	48
The Alternative: A Constant Capital ‘Overhead Cost’ Approach to SNUL.....	55
Chapter 3: A Methodological and Empirical Survey	64
Anwar Shaikh versus Murray Smith	66
From Fred Moseley to Andrew Kliman	75
Guglielmo Carchedi and Michael Roberts: The Roots of Capitalist Crisis	86
Conclusions	94
Addendum: Financialization and Fictitious Capital	98

Chapter 4: Marx’s Empirical Variables and the Analysis of US Capitalism	105
Part I: Marx’s Forecasts, The Rate of Profit and US National Income and Accounting.....	106
The US Economic Order Today	106
The Value Composition of US Output.....	112
The Average Rate of Profit for the US Social Capital.....	115
Part II: Long Waves and Depression in Capital Accumulation.....	122
“Recovery” #1: Neoliberal Restructuring.....	127
“Recovery” #2: Out of the Frying Pan and into the “FIRE”.....	131
The Assessment	133
 Conclusion	 142
 Bibliography.....	 150
 Appendix A:.....	 158
Appendix B:	160

List of Figures

Figure 1: Productive Labour & Systemically Necessary Unproductive Labour	60
Figure 2: The Spheres of the Social Capital	62
Figure 3: Rate of Surplus-Value, (Shaikh and Tonak)	69
Figure 4: Rate of Surplus-Value, (Smith and Butovsky)	70
Figure 5: ‘Non-FIRE’ Average Rate of Profit, (Shaikh)	71
Figure 6: Average Rate and ‘Non-FIRE’ Average Rate of Profit, (Smith and Butovsky)	72
Figure 7: Organic Composition of Capital (Shaikh and Tonak).....	73
Figure 8: Organic Composition of Capital (Smith and Butovsky)	74
Figure 9: Rate of Surplus-value, Rate of Profit, and Value Composition (Moseley)	77
Figure 10: (Extended) Rate of Profit	78
Figure 11: Organic Composition of Capital	79
Figure 12: Kliman’s ‘Rates of Profit’	84
Figure 13: Organic Composition of Capital (Kliman).....	85
Figure 14: The Profit Cycle	88
Figure 15: Average Rate of Profit (Roberts)	88
Figure 16: Average Rate of Profit and Organic Composition of Capital (Carchedi)	90
Figure 17: ‘Constant-Exploitation’ ARP	91
Figure 18: Percent Drops In..., Crisis Years	92

Figure 19: Jones’ “Non-Fictitious” Rate of Profit.....	100
Figure 20: FIRE Sector Profits, Before/After ‘Normalization’	102
Figure 21: Mass of Profits	103
Figure 22: Aggregate Wage Bills as a Percentage of MGO	108
Figure 23: The Value Composition of Output	114
Figure 24: The Rate of Surplus-Value and Value Composition of Capital.....	117
Figure 25: The Average Rate of Profit and Organic Composition of Capital	118
Figure 26: Eight Variegated ARP and OCC Measures	120
Figure 27: The Kondratieff Long Wave-Cycle, 1800-2040, US Economy.....	125
Figure 28: Public and Private Debt, % of GDP (Keen).....	128
Figure 29: VCC, VCC, and RSV (the neoliberal “boom period”)	130
Figure 30: Levels of Fictitious Capital, 1986-2016.....	133
Figure 31: Annual Rates of Growth in Marxian Gross Output and Capital Acc.....	136
Figure 32: Average Annual Growth of the Top 35 “Advanced” Economies by Dec.....	137
Figure 33: World Rate of Profit, approximation (Roberts)	138

Introduction

If you substitute platforms for textile mills, machine learning for steam engines, Twitter for the telegraph, you have exactly the same dynamics as existed 150 [170] years ago – when Karl Marx [and Frederick Engels were] scribbling the Communist Manifesto.

– Mark Carney, Governor, Bank of England, *The Independent* (April 2018)

Modern bourgeois society, with its relations of production, of exchange and of property, a society that has conjured up such gigantic means of production and of exchange, is like the sorcerer who is no longer able to control the powers of the nether-world whom he has called up by his spells.

– Karl Marx and Frederick Engels, *The Communist Manifesto* (January 1848)

While the above passage may perhaps be from Marx and Engels' most famous work, I would argue that it is not from their most vital. The latter is undoubtedly the three volumes of *Capital* – Marx's *magnum opus* – where he elaborated his most important contribution to political economy: his theory of *surplus-value*. Although the last two volumes were compiled posthumously by his long-time collaborator and friend, Frederick Engels, *Capital* is Karl Marx's paramount work: the objective of which is the disclosure of capitalism's inner laws of motion.²

Today, the great majority of philosophers and social scientists seem increasingly ignorant of those fundamental laws of motion. The mainstream economic current (the 'bourgeois economics' that Marx would have deemed vulgar) openly denies the existence of such laws, for their main scholarly purpose is to prove that capitalism can indeed last forever. In fact, the purpose today of a great deal of philosophy, sociology and economics of all kinds is to attest to capitalism's permanence. But nothing lasts forever.

² As opposed to natural laws, or even so-called iron laws of development, which claim to be predictive and irrefutable, socio-economic 'laws of motion' to Marx were never predictive but dialectical and therefore wholly relational. Specifically, a law in this sense is a tendency exhibiting influence ('great power') over its countertendencies. In turn, such laws govern capitalism's intrinsic self-movement (its internal dynamics) and therefore act as the primary object of study for not only Marx, but for a plethora of socialists alike. See Freeman 2015.

Most exemplary of this service is the neo-classical school and its marginal utility theory, whose scholarship arose as a negation to the analytical arsenal of the classical school of Adam Smith, David Ricardo and Karl Marx. Pioneered by the bourgeois economists of the late 19th century, Carl Menger, Alfred Marshall and Léon Walras, the neo-classical school adheres to a marginalist theory of value according to which the “value” of an object or service (a commodity) is treated as synonymous with the ‘price’ it yields under the conditions of a “free” and competitive market (i.e., ‘value/price’ exists as a psychological relation determined by the marginal utility of a thing to the would-be consumer).³ The historical and ideological basis of the “marginalist revolution” was not only the naturalization of capitalist exchange relations but also a refutation of the *productionist theory of value* of the classical school.⁴

Taking a holistic approach, the classical school, at its best, searched for the ‘social substance’ out of which ‘price’ emerges, adopting the analytical standpoint of commodity production as a whole rather than the ‘individual commodity’. Contrary to the vulgar subjectivism of the marginalists, the goal of production was understood to be profit; and hence, ‘value’ was seen as arising from the *production* of commodities, not through the exchange of commodities. The classical school, therefore, regarded ‘price’ as something corresponding to a determinate magnitude of ‘value’ rooted in production and the social division of labour. ‘Value’ existed as an objective social substance while money functioned as the universal representation of that substance (commodity exchange-value).⁵ In turn, the sphere of exchange is simply the

³ Smith 2018, p. 70.

⁴ Paul Samuelson’s fusion of Marshallian economic theory with that of Keynesian theory – the “neoclassical synthesis” as it is often understood – compels me to group together both the neoclassical marginalists and the Keynesians as the “mainstream” current (that is, both upholding 1. a form of Say’s law and marginalism and 2. the Smithian ‘price trinity’) who either fall on the “demand-side” (heterodox) or the “supply-side” (orthodox) on the problems of a capitalist economy. Contrary to these “bourgeois” positions of vulgar subjectivism and price trinities is Marx’s socialist position, the only consistent theory of *labour value*.

⁵ Dobb 1973; Heilbroner 1998.

outward-facing reality of capitalism wherein economic values, in the form of market prices, are actually manifested.⁶ At this level of analytical abstraction, internally driven economic ‘laws’ govern the production of value as well as the distribution of incomes to different classes, while revenues accrue to economic actors on the basis of ownership rights.

Consider the intellectual journey of the revered heterodox economist, Robert Heilbroner, who at first refused to look beyond the realm of exchange but eventually realized that exchange only represented capitalism’s superficial outward facing reality.⁷ What concerned him later in his life was what had concerned the classical economists – capitalism’s inner essence – the ‘netherworld in whose grip the capitalist enterprises are caught’ irrespective of their intentions, those laws of motion that so many other economists ignore.⁸ Heilbroner understood that while exchange plays a necessary role, it was *production* and *profit* at the macro-level that were the key variables to laying bare the laws of motion of modern capitalism.

The marginalist school, divorced from reality as it is, remains at a level of abstraction incompatible with a productionist theory of value. When consumption is heralded as the goal of production, economic science becomes a science of consumer psychology, one that focuses on the point of exchange rather than the point of creation.⁹ In turn, such upside down “science” treats the surface appearance of a commodity’s value (the ‘market-price’) as its essence, while its actual social value (its ‘price of production’) is treated as some mysterious and unfathomable entity – an entity purely visceral in nature. Through this inversion, a scientific inquiry that reflects real social processes is subordinated to a science of personal enrichment and greed, and it

⁶ Clarke 1982, p. 173.

⁷ Heilbroner 1985.

⁸ Heilbroner, quoted in Shaikh 2004, p. 2.

⁹ Marginalism holds that economic actors make completely informed and rational decisions in the face of perpetual scarcity. This myopic presupposition is cemented deep in this perspective and effectively destroys any possibility of grasping the totality of the ‘sum of interrelations’ within which individuals endeavor to live.

is in this vein that the profit-centered gluttony of capitalist production is transformed into an innate attribute of human nature.¹⁰ In his Ph.D. dissertation, Ian Wright makes the point eloquently:

To borrow Marx's arresting phrase, "every child knows" that marks on a ruler measure distance, or a thermometer's mercury column measures temperature, or a clock's hands represent time. And inquisitive minds, before they are socialised to stop worrying about such things, naturally ask the value question and enquire about the nature of the numbers they find stamped upon the goods they buy and the tokens they carry in their pockets. But unlike rulers, thermometers or clocks, few adults have a clear and distinct idea of the semantics of monetary phenomena, including economists. We therefore disappoint our children. Economic science once grappled with the value question but has subsequently educated itself to stop asking it. Yet monetary phenomena, from the humble penny to the most esoteric financial instruments, control our lives in the most fundamental, pervasive and intimate manner. I [Ian Wright—*JW*] believe the value question is therefore important, both within economics and the social sciences generally, because economic value is ubiquitous yet remains something of a mystery.¹¹

When consumption (exchange) is the sole concern of economic inquiry, there is no need to look beyond the surface appearance of the commodity-form because, formulated in prices, this is what we (as consumers) directly experience.¹² However, the aim of science – that is, the penetration of the apparent regularities of observable phenomena to produce generalizable conclusions in order to prompt historical foresight – requires precisely the opposite. Indeed, to penetrate the "bourgeois veil" of fetishisms, to grasp those internally driven dynamics of the modern capitalist system, the 'value question' from the standpoint of society as a whole must then be plumbed.¹³

The classical economists, Smith and Ricardo, both believed in the mutual exchange

¹⁰ Engels 1996; Shaikh 1978.

¹¹ Wright 2015, p.12.

¹² Ibid., pp. 11-13.

¹³ Ibid.

between capital and labour. Smith was forced to abandon his theory of value because he was unable to overcome the ambiguities in his ‘trinity formula’, which he used to explain the so-called original “sources of value” under capitalism.¹⁴ In the end, it was only Ricardo and Marx that upheld a theory of value *verbatim*; however, unlike Ricardo, Marx certainly did not believe in the beneficial exchange between capital and labour. His understanding was precisely the opposite as so-called mutual class relations were actually *exploitative* class relations.¹⁵

For Ricardo, a commodity ‘carried with it’ to market the value created by the *concrete labour-time* performed in its production, and consequently values and prices remained equivalents in theory. On the other hand, Marx was a dialectician, so magnitudes of value systematically deviate from those of prices. Accordingly, the value of a commodity was determined by *socially necessary labour*, labour abstracted from the specific concrete forms it takes in production – but this is not some pure abstraction, it was a “real abstraction” based on real-life processes. What determined the value of an *individual* commodity, according to Ricardo’s labour theory, was the particular quantity of labour-time required for its production. However, according to Marx, the value of a commodity is determined by the *proportion of social labour* allocated by society to its production, including the social labour-time expended for subsidiary commodities, together functioning as the commodity’s “center of gravity” around which its price oscillates based on market ‘forces’.¹⁶

¹⁴ Smith’s ‘trinity formula’ ($O=r+p+w$), see below, is really a dualism because the two components of rent and profit are one in the same. In actuality, Smith’s formula is: $\text{output} = w+p$, and thus not triadic like Marx’s.

¹⁵ Wright 2014, pp. 21-24. The classical approach to labour value/theory has generated two so-called but nevertheless well-known “errors.” 1) Ricardo’s invariable measure; and 2) Marx’s so-called transformation problem. However, once properly categorized, according to Wright, these errors go away. The secret here is in the differentiation between total labour costs and technical labour costs. According to Wright, once such an asymmetrical dual system approach is addressed by surmounting the ‘category-mistake’, so once the distinction is made between the total and the technical labour costs, a “new” more general labour theory of value apparently emerges.

¹⁶ Marx 1976, pp. 127-30; Mage 1963, p. 9.

As Marx put it in a letter to Ludwig Kugelmann in his attempt to clarify his understanding of social exchange-value:

Every child knows that any nation that stopped working, not for a year, but let us say, just for a few weeks, would perish. And every child knows, too, that the amounts of products corresponding to the differing amounts of needs demand differing and quantitatively determined amounts of society's aggregate labour. It is SELF-EVIDENT that this *necessity* of the *distribution* of social labour in specific proportions is certainly not abolished by the *specific form* [capitalist, etc.] of social production; it can only change *its form of manifestation* [waged, labour-time]. Natural laws cannot be abolished at all. The only thing that can change, under historically differing conditions, is the *form* in which those laws assert themselves. And the form in which this proportional distribution of labour asserts itself in a state of society in which the interconnection of social labour expresses itself as the *private exchange* of the individual products of labour, is precisely the *exchange value* of these products.¹⁷

When the products of labour are produced for the purposes of private exchange, the measure of a commodity's value, upon which exchange is based, becomes the *labour-time socially necessary* for its production. In this sense, value is understood to be a definite quantitative magnitude that limits the value available for representation in such phenomenal categories as aggregate prices, profits and wages.¹⁸ Thus, value springs from and mediates the social relationships specific to the capitalist system, a system in which mental and manual labour and the physical means of production are joined together in the creation of commodities that are endowed with social value, including surplus-value, and appropriated by capitalists for a profit.¹⁹

Marx replaced Smith's 'price trinity' (i.e., output = profits + rent + wages) with his value-theoretic formula (in which the total value of output = constant capital + variable capital + surplus-value). In contrast to Smith's formula, Marx's economic output was determined by a

¹⁷ Marx 1988, p. 68 [emphasis mine and in original].

¹⁸ Smith 2010, Appendix One.

¹⁹ Clarke 1982, p. 76.

historically specific set of value relations that incorporates a specific mode of class exploitation. Surplus-value – the form taken by the surplus product under capitalism – is concealed by the wage-form. Working-class wages are equal to the socially necessary labour required for the reproduction of the commodity ‘labour-power’, while surplus-value is equal to the value that workers produce beyond such waged remuneration. Put differently, surplus-value is equal to the aggregate surplus-labour-time performed by workers as a whole above and beyond the cost of their own socially determined needs.²⁰ Surplus-value – in its independent forms of (1) profit of enterprise, (2) interest and (3) ground or technological rent, as well as (4) the ‘salaries’ paid by capitalists to themselves – is distributed and realized in money-form via the “free-market.”²¹

Once the value question has been examined on a serious scientific level and once the modern class relations of exploitation are grasped, conclusions about socio-economic processes – about the work place, money, price, and economic activity as a whole – shift greatly. The culmination of Marx’s value-theoretical analysis of the commodity-form, as organized by Engels in *Capital III*, is the *law of the tendency of the rate of profit to fall*: the tendency for the proportion of the economy devoted to investment in the means of production (constant capital) to increase at a faster rate than the employment of productive wage-labour (variable capital) – the latter being the sole source of new and surplus-value. Thus, and contrary to Adam Smith’s notion of a benificent ‘invisible hand’, the *unintended consequence* of the historical development of the capitalist profit system – its advancement through the introduction of increasingly sophisticated, *productivity-enhancing* and *labour-displacing* technologies in the methods of commodity production, as promoted by market competition – is an overall reduction in the magnitude of

²⁰ Shaikh 1978, p. 227.

²¹ Smith 2018; Mage 1963.

surplus-value produced (the very lifeblood of the system) relative to the capital advanced.²²

An understanding of this perennial capitalist law of motion, a law which Marx regarded as the ‘most important law of political economy,’ is essential to grasp the intricacies and complexities of the evolving social relations of capitalism and to grasp the contradictory trajectory of the capitalist system itself.²³ At the very least, all of the classical economists recognized the reality of periodic falls in the general rate of profit; it was assumed to be a fact – the point, however, was to explain its cause and expose its effects. And this is exactly what Marx did.²⁴

The Road Forward: Political Economy, (Critical) Sociology, and Marx

The disciplinary scope of classical political economy diverges from that of mainstream sociology. In response to the emergence of a plethora of pro-socialist economic theories in the 19th century, the defenders and proponents of the bourgeois status quo endeavoured to separate in analysis the *economic* from the *social* in its entirety. Sociology’s origin is a product of this disciplinary separation between the political, the economical and the social, and broadly speaking takes for granted the ‘social basis’ of wealth by somehow looking “beyond” class dynamics onto a moral-/normative-plane of sociocultural critique and subsequent (utopian) human emancipation. Against this approach, political economy challenges such conceptions of the ‘social basis’ of wealth and concentrates its attention on the process of the socio-economic production of the material-natural elements of ‘wealth’ and their distribution between determinate classes of people.

Furthermore, political economy in the Marxian tradition fully rejects the separation

²² Marx 1991, p. 331.

²³ Marx 1973.

²⁴ Freeman 2015, p.2.

between the *economic* and the *social* and signifies a return to a focus on capitalism as fundamental to socio-economic and political inquiry. As defined by Steven M. Buechler, the field of *critical sociology* is at once dedicated to a ‘critical angle of vision’ (which means to be critical of the discipline of sociology itself) and to social progress through human emancipation.²⁵ From this point of view, I find Marxian political economy vital to the future development of – and fully consistent with – the heterogeneous field of critical sociology.

The so-called “sympathetic” Marxist author and moral philosopher, Peter Singer, draws the conclusion that most of Marx and Engels’ “predictions” of the unpromising future of capitalism’s historical development are wrong; and that only the work of Marx the philosopher, not Marx the scientist or political economist, endures.²⁶ Curiously, the obvious fact that Marx’s science is a direct product of his philosophical commitments somehow eludes Singer. Indeed, if his philosophical roots endure, as Singer claims, then so too must Marx’s scientific ‘economics’. It was precisely Marx’s scientific discoveries, informed by the materialist dialectic and generated through his analysis of the commodity-form, that illuminated the “concealed,” inner laws of motion of the capitalist mode of production. The scientific work of the ‘Mature Marx’ exists *only* because of the foundational work of the ‘Young Marx’. Contrary to what many critics assert, the greater part of what Marx and Engels wrote about capitalism has indeed come to pass. The two centuries of capitalist history that have transpired since Marx’s birth has fully confirmed the potency of his historical foresight:

- a) The need to constantly revolutionize the methods of commodity production through sophisticated technological innovation, whose principal thrust is productivity-enhancing and labour-displacing. Overtime, the ratio of investment in labour-power increases at a slower pace than investment in the means of

²⁵ Buechler 2015, p. ix.

²⁶ Singer 2000, p. 100.

production, signifying a rise in the ‘organic composition of capital’. This accumulation process leads to the increasing centralization of capital at one pole of the class structure and increasing misery for the vast majority of the working masses at the other.

- b) The subordination of all things to the imperative of private-profit. The unintended consequence of market competition engenders a tendency for the formation of an economy-wide *general rate of profit*, one that tends to decline as the organic composition of capital increases. Falling profits generate economic crises (such as depressions), stagnant wages and high unemployment – the ‘reserve army of labour’ as Marx called the phenomenon, which holds down wages so that profits can recover.
- c) Recurrent crises of “overproduction” resulting from falling profitability and the need for capital to revitalize the latter at the expense of labour. Such crises then force capital to expand across the globe in order to find new avenues of exploitation and profit by any and all means deemed necessary.
- d) The increasing obsolescence of the nation-state system and the ubiquitous nature of capital as ‘self-expanding value’ as well as the creation of a global division of labour.

These forecasts anticipate the central themes addressed in this study.²⁷ By surveying the work of dozens of contemporary Marxist and non-Marxist political economists, and following a unique theoretical *re-specification* of Marx’s value categories, this study contributes to the growing yet still-arcane body of literature on Marx’s value theory by revealing the power and indispensability of a value-theoretical analysis of the present state of advanced financialized capitalism in the “post-war” US economy since 1950. I attempt to show that the contradictions of advanced financialized capitalism have not only intensified (despite popular opinion to the contrary) but have also culminated in the wake of the ‘Great Stagflation’ of the 1970s in a

²⁷ There have been many studies dedicated to affirming the validity of Marx’s forecasts, see: Smith 1984 for the Canadian economy and Roberts 2018 for the US and UK economies. For a reference to Marx and Engels’ prognosis of capitalism, see Smith (2010, pp. 61-8) and Mandel (1986).

qualitatively “depressed” socio-economic environment from the standpoint of the social capital’s valorization requirements.

While the failures of global capitalism over the “post-war” period can be best accounted for and explained within Marx’s theoretical framework, it must still be acknowledged that a great diversity exists amongst contemporary Marxist economists concerning the methods that should be used to operationalize Marx’s variables. In light of this, it is crucial to explore and clarify the theoretical and methodological differences that exist as well as compare the empirical results obtained by ostensibly Marxian empirical studies in order to better interpret the world.

Outline of Chapters

While chapter one serves as introductory by discussing some of the core concepts of Marx’s philosophy and value theory, chapters two and three both act as conceptual “blueprints” informing my specification of Marx’s variables in the analysis of the US economy. Chapter two is most concerned with contentious debates and theoretical problems concerning Marx’s value theory, such as the controversial specification of unproductive expenses; chapter three is devoted to methodological and interpretive issues regarding the operationalization of Marx’s concepts for purposes of empirical research and the subsequent conclusions drawn from which. Finally, chapter four presents my empirical findings twofold: 1) ‘testing’ Marx’s forecasts against the evolution of the US capitalist economy between 1950 and 2016; and 2) in the holistic diagnosis of its relative performance since the Great Stagflation of the 1970s.

Chapter 1

To demonstrate the truly social character of Marx's work and to grasp the full explanatory power of his value-theoretical analysis of capitalist commodity production, I must first begin with a discussion of the foundations of his philosophical and theoretical perspectives. Contrary to what some have claimed, the "Mature Marx" of *Capital* never departed from his "younger" philosophical standpoint.

The Point of Departure: Marx's Philosophy²⁸

There exist three dominant ontological perspectives: 1) philosophical idealism, 2) philosophical materialism and 3) philosophical dualism. Materialism and idealism are straightforward opposites, for the former holds that 'all that exists' is physical matter, while the latter holds that consciousness or mind is the source of 'all that exists'. Dualism straddles both of these, suggesting that reality is divided into two distinct realms: the ideal-spiritual and the material-natural. At the same time, dualism accepts the metaphysical claim of idealism that ideas can exist independently of the material and social circumstances that Marx considers their seedbed.

Marx's philosophical materialism is uniquely distinguished by a *dialectical-monistic* view of the reality constituting the human condition – that reality, encompassing natural, social and ideal aspects, is a *unified totality* grounded on a single substance, namely physical matter. In this sense, the natural and the social worlds are distinguishable but not separate – forming together interrelated elements of a singular material-world subject to incessant change. Just as 'subject and object' as well as 'material and ideal' form contradictory unities of opposites, so too do the natural and the social. From this perspective, reality is not a "*sum of facts*" but a

²⁸ See Smith 2014, chapters 3 and 4.

“*combination of processes.*”²⁹ Thus, to paraphrase Marx, it is life that determines consciousness, not the other way around.³⁰

Furthermore, for Marx the examination and understanding of social reality must be grounded in history and in practice. The first historical act is the practical act of humans producing their means of subsistence. Before things like art, politics, and sports can be pursued, people must eat, drink and acquire shelter. Hence, organized and purposive labour constitutes the essence of human existence and therefore of social life itself.³¹ Labour is the basis of culture just as material production is the basis of any growing community or civilization; because without the former, the social reproduction of the latter is impossible. Over the course of history, social life has been organized around specific property forms and relations that govern the distribution of material assets in particular ways. The late Marxist sociologist Erik Olin Wright formulates the point succinctly: “what you have determines what you have to do to make a living.”³²

In turn, the social relations of production and reproduction characterize social life in the sense that social actors are born into definite property relations, or *class* relations, which organize how they live and how they reproduce the conditions of their existence. The specific *mode* in which social production is carried out depends on the historical form of its existence. For instance, in today's capitalist economy the Canadian proletarian has little choice but to sell his or her labour power in order to subsist. Some argue that such a claim is “reductionist” because it implies that the material edifice of a society is the *sole* determinant of its history and of social actors’ activities.³³ But this is nonsense. Such a reductionist claim has no place in

²⁹ Mandel 1986

³⁰ Marx and Engels 1968, p. 37.

³¹ Mohun 1996, p. 204.

³² Wright, cited in Chibber 2011, p. 63.

³³ Eagleton 2011, p. 121. Also, see chapters 5 and 6.

Marx's theory.

The 'economic base and superstructure' metaphor sketched by Marx in one of his shorter works, the Preface to *A Contribution to the Critique of Political Economy*, was never meant to suggest a *one-way street*, where the material edifice of a society mechanically dictates all other aspects of that society. Rather, the relationship between the base and the superstructure is a dialectical one. All the same, and more often than not, social institutions like education and politics *are* determined by economic forces, even as they evince a unique life of their own. It is precisely the dialectical points where the base and superstructure meet, concretely and conjuncturally, that shape how they mutually influence one another. In fact, it is not Marx's analysis but *capitalism itself* that is economically reductionist. With very few exceptions, the logic of the capitalist system strictly subordinates everything to the appropriation of private profit. It is not Marx that preaches 'production for the sake of production' and it is not Marx that reduces everything to economics – but it is the capitalists that do so. Marx's actual view of social production and its relationship to 'extra-economic' facets of social life was much less myopic and far more fruitful than the way it is often portrayed today by his critics. Looking to the future, he saw individual acts of transforming reality alongside other social beings – rooted not in exploitation and greed, but instead in praxis and community – as an artistic expression of social life itself.³⁴

The Materialist Conception of History

Marx came to his theory of history by studying two influential 19th century thinkers: G.W.F. Hegel and Ludwig Feuerbach.³⁵ Marx believed that Hegel's *dialectic* effectively "bridged the

³⁴ Marx 1897.

³⁵ Hegel's dialectical idealism is often mistakenly presented as: thesis, antithesis and synthesis. But this latter 'triad' actually belongs to Fichte, not to Hegel. The triad that most interested Hegel was that of universality, particularity

gap” between ‘what is and what ought to be.’ Marx also believed that Feuerbach’s ‘contemplative materialism’ signalled a significant advancement in philosophical thought at the time, even if it was fundamentally ahistorical and static. Marx, therefore, looked to ‘open up’ Feuerbach’s static materialism, extending it beyond the critique of religion into a critique of all that exists. After all, unlike Feuerbach’s, Marx’s ‘sensuous materialism’ saw that “‘religious sentiment’ is itself a social product.”³⁶ Human history was not static but dynamic. And through this framework Marx sought to extract the “rational kernel” from the “mystical shell” of Hegel’s dialectical-idealism, “turning it right side up.”³⁷ Once the mystical shell was stripped away, what remained was its essence, the ‘materialist dialectic’ – better known as historical materialism, its scientific counterpart. Marx’s discovery was that history unfolded as a succession of different modes of production; successive epochs in ‘the economic formation of society’ can be divided into distinct historical periods characterized by economic dynamics rooted in specific relations of production and reproduction.³⁸

The crude “historical materialism” of Stalin naturalized the ‘laws of social development’ known to socialists by privileging technical change within a single nation in the effort to justify the doctrine of ‘building socialism in one country’. In doing so, such a mechanical perspective transformed the economic-base and superstructure relationship into a *one-way street*, effectively reducing the ‘social’ to the ‘natural’ and thereby denying it is humans – ‘real living individuals’ – who are the true subjects of history.³⁹ In a letter to Bloch, Engels emphasized that ‘economics’ is by no means the only determining factor in the historical process:

and individuality, one that was transformed by Marx into the natural, the social and conscious activity (see Smith 2014, pp. 129-140).

³⁶ Marx 1989 [1845].

³⁷ Marx 1975, p. 103.

³⁸ Chibber 2011.

³⁹ Fine and Saad-Alfredo 2004.

According to the materialist view of history, the determining factor in history is, in the final analysis, the production and reproduction of actual life. More than that was never maintained either by Marx or myself. Now if someone distorts this by declaring the economic moment to be the only determining factor, [that person] changes that proposition into a meaningless, abstract, ridiculous piece of jargon.⁴⁰

Material conditions may primarily determine human consciousness, yet the material conditions themselves are ever-changing throughout history. Through the act of labouring, through social production, humans continually alter their own surroundings, and, in turn, this alteration changes the humans themselves.⁴¹ Again, the social and the economic are interrelated elements of a unified totality, a singular material-world, not divided into separate realms. In the end, treating ‘the ideal’ as something *mystical* and *non-material* downplays the role of humans’ ‘conscious activity’ – their creative praxis – relative to ‘objective forces’ and pushes ‘real living individuals’ into the backdrop of history. After all, humans make their own history, but only on the basis of the material circumstances set in place by the past.⁴²

The Road Less Traveled: Marx’s Value Theory

There exists a great literary diversity between various Marxist and non-Marxist theoreticians, revolutionaries and scholars of all kinds concerning the “correct” way to interpret Marx. Yet, my concern here is simply understanding Marx on his own terms. While an assessment of the various interpretations of Marx’s value and crisis theory is beyond the scope of this chapter, a preliminary review of it is a necessary preparation for the forthcoming chapters.⁴³

⁴⁰ Engels 2001, p. 34.

⁴¹ Fine and Saad-Filho 2004.

⁴² Marx 1970b, p. 103.

⁴³ Interpretations of Marx’s value theory that I recommend are Mandel’s two-part treatise on Marxist economic theory (1968), Fine and Saad-Filho’s companion guide to Marx’s *Capital* (published in 2004 and again in 2010), and Smith’s forthcoming *Invisible Leviathan*, second edition (2018).

While it is somewhat apparent that the capitalist mode of production is a mode of generalized commodity production, it is far less apparent that it is also the first mode of production in which *labour-power itself* becomes, on a wide-scale, a commodity that is bought and sold on the market; a commodity, moreover, that can produce additional value beyond its own initial worth. This point is key to understanding Marx's theory of surplus-value.

To begin, a commodity can be defined as an object, thing or effect with some sort of usefulness and that is exchangeable in a market. This is captured in Adam Smith's famous presentation of the *dual character* of the commodity-form of the product of labour: that it has both a 'use-value' and an 'exchange value'. Marx saw that use-values are infinitely variable and cannot be quantified; however this was not true for exchange-values. Although some use-values are purely products of nature and are not presented at first as commodities, this makes little overall difference in the end because objects are exchanged as *equivalents* in the market. And they are exchanged as equivalents only because of an age-old, extended and generalized social exchange process that has unfolded throughout human history.⁴⁴ Thus, the question for Marx was on the basis of what types of relationships and by what metrics are such equivalent, exchangeable values to be understood.⁴⁵

As stated earlier, the products of human labour are the foundation of human life. It takes little thought to realize that if everyone ceased working what would remain would be a ghost town – this is the ubiquitous 'law of labour value'.⁴⁶ Without first the performance of social labour, simple commodity production would never have emerged; and without simple commodity production, capitalist commodity production would never have emerged. Initially,

⁴⁴ Delgado 2018, pp. 114-17 (unpublished).

⁴⁵ Fine and Saad-Filho 2004, pp. 15-20.

⁴⁶ Smith 2018, p. 81.

commodities are exchanged based on approximate perceptions of the expenditure of concrete labour-time. Then a universal equivalent emerges (a precious metal like gold) that represents quantities of value, produced and exchanged, based on the relative costs of production. Finally, as this social exchange process continues to evolve and as commodities grow into fetishized objects of value, ‘money-price’ reigns supreme as a ‘cash economy’ surfaces.⁴⁷

Once the productive forces of any society advance beyond the capabilities of a mere subsistence economy, this permits the development of a surplus and with this a dominant social *class* (“propertied” or ruling class) emerges that controls it. The emergence of a *surplus* – or, the surplus product, which is equal to what society as a whole produces minus the cost of producing it – was at first driven by environmental adversities and the need to create a reserve fund to ensure the security and well-being of the community as a whole. But with the rise of a surplus-appropriating *ruling class*, and eventually a process of value expansion under capitalism, surplus production acquired an entirely new significance and logic.⁴⁸

In a society dominated by exchange, where exchange is ubiquitous (as in capitalist society) commodities are produced to be exchanged in the market for the purposes of private profit. No one enters the market to willingly get “ripped off” but rather to exchange to benefit both parties; or, in other words, to obtain something, something of equal value must be lost. This is the law of the *exchange of equivalents*. If y equals x then $5y$ exchanges for $5x$; and if $1e$ is equal to $5x$ then $1e$ exchanges for $5x$ and $5y$ exchanges for $1e$ and so on and so forth. But what exactly acts as the metric that this exchange of equivalents revolves around? Perhaps, weight? But the weight of a commodity, for example, cannot indicate very much as the heaviest of

⁴⁷ Marx 1976, p. 167, 185. Following the emergence of a “cash economy” is the acute financialization on the value-expansion process.

⁴⁸ See José María Delgado’s hopefully soon to be published book *Fundamentals of the Genesis and Development of the Social World*. Here, I adhere to *Monopoly Capital*’s definition of surplus: see Baran and Sweezy (1963, p. 9).

objects would be the most valuable, and the lightest the cheapest. If it were weight, then the average motor vehicle's cost would be roughly the same as 300 planks of lumber or 2000 cotton shirts.⁴⁹ Obviously, if the weight of a motor vehicle changes, its value *does not change*. Its value *does* change however if the way in which it has been produced has become increasingly automated, requiring the expenditure of less living-labour-power and a greater contribution from accumulated 'dead' labour in the form of machinery in the production process. Its price becomes inflated as a result of the additional labour-power expended in its advertising as well as associated financial loaning schemes, driving up stocks, etc.; and the price of one motor vehicle compared to another fluctuates based on both production and market conditions.

It is well known that Marx defined the two fundamental classes under the capitalist mode of production that form its essential social relations of value production and reproduction: the *bourgeoisie* (capitalists) as the ruling-class minority and the *proletariat* (wage labourers) as the working-class majority. He also made the critical distinction that workers, who have little to no other choice, enter the market to sell as a commodity, not the labour they perform, but their *capacity to work*: their *labour-power*.⁵⁰ Due to the ontological uniqueness of the *commodity labour-power*, it is the only commodity with the potential to create additional value beyond its own exchange-value, and this ability to generate *surplus-value* is precisely its use-value to the capitalist.⁵¹ Due to this exploitative class relation, which is concealed by the 'wage-form', wage-workers receive only a portion of the value they produce for their employers. Thus, surplus-value is equal to the labour performed during the 'unpaid' portion of the work day.

⁴⁹ The cost of the average car in the US is roughly \$25,000, while 300 2x4 lumber planks (300 x 3) is \$900 and 2000 emblmed T-shirts (2000 x 50) is \$100,000. All of these have roughly the same weight at an average weight of 4,000lbs.

⁵⁰ See Marx 1976, chapter 1.

⁵¹ Fine and Saad-Filho 2004, p. 37.

In *Capital* Marx proved that social exchange-value emerges as a quantitative relation between classes and individuals in the market with ‘socially necessary abstract-labour time’ as the measure of value and money as its necessary form. The renowned Marxist economist, Anwar Shaikh, expresses Marx’s paramount discovery as follows:

In Volume I Marx demonstrates that a surplus product can arise only if workers as a whole work *more* hours in a given day than it takes for them to produce the goods they themselves consume and goods needed to replace those used up the production process. It is the surplus labour time of workers over and above that necessary for them to maintain themselves and the productive system, which provides the surplus product [in the form of surplus-value] appropriated by the capitalist class.⁵²

The Circuit of Capital as Value in Motion

Marx began his examination of capitalism with a consideration of its basic ‘cell’ form: the commodity-form. In the dialectical tradition followed by Marx, the method of investigation flows from its object. By analyzing value as a historically specific representation of social labour he was able to disclose that “netherworld” of the capitalist system. Accordingly, the opening passage to the first volume of *Capital* reads:

The wealth of societies in which the capitalist mode of production prevails appears as an ‘immense collection of commodities’; the individual commodity appears as its elementary form. Our investigation therefore begins with the analysis of the commodity.⁵³

The easiest way to portray the phenomenon of capitalist commodity production as a whole is to refer to the economic ‘circuits’ expounded by Marx in *Capital I*. Long before the emergence of capitalist exploitation, simple commodity production and exchange existed. The small-scale dynamic of ‘simple commodity production’ is represented by the economic circuit:

⁵² Shaikh 1978, p. 227.

⁵³ Marx 1976, p. 125.

$$C - M - C$$

Here, C represents commodity, M money, and C a different commodity. A commodity is produced and sold for money by a small-scale producer, who then purchases a different commodity with the money earned. This is essentially an equivalent exchange process between small producers, where through their own individual or familial labours, the commodity producers earn an income adequate to meet their basic needs. Profit is not the goal of this circuit; rather it is consumption. This process is about producing and selling commodities in order to buy and consume other commodities. As capitalist commodity production emerges, a new circuit becomes apparent and the goal of this circuit is radically different. Money profit, not consumption or the satisfaction of needs, becomes paramount. Hence:

$$M - C - M^{\wedge}$$

The ‘circuit of capital’ is represented here by M (money-capital), C (commodity), and M^{\wedge} (enlarged money-capital). In this sense, surplus-value is created through the enlargement of M into M^{\wedge} .⁵⁴ In order to more precisely locate the origins of surplus-value, Marx expanded the $M - C - M^{\wedge}$ circuit as follows:

$$M - C <^L_{MP} \dots P \dots C^{\wedge} - M^{\wedge}$$

In this ‘expanded circuit of capital’ Marx adds into the formula the following elements: the commodity-input labour-power (LP), which is the worker’s capacity to labour during the work-day; the commodity input ‘means of production’ (MP), including machinery, tools, structures, raw materials, fuel, etc.; the production process (P), in which LP goes to work on MP; commodity-output or commodity-capital (C^{\wedge}), now endowed with the surplus-value generated in P, which therefore represents a greater sum of value than the original inputs; and finally, the

⁵⁴ Marx 1992, p. 109.

enlarged money-capital (M^\wedge) that is realized in the market when and if the commodity output is sold at its value. The difference between the original M and M^\wedge is surplus-value.⁵⁵ As a result, the circuit can not be effectively completed in order to reproduce itself unless commodity-capital is realized in price form as money-capital.⁵⁶

Marx's value-theoretic formulation of the sum of the total value produced is:

$$O = c + v + s.$$

Here, total economic output (O) is the sum of the three fundamental flows of value: constant capital (c), variable capital (v) and surplus-value (s). Referring back to the circuit of capital – the costs of LP to the capitalist, the productive wage-bill, is v ; the value of the MP which is consumed during P is c ; the surplus-labour performed that endows C with an increment, is s .

Constant capital, at this level of theoretical abstraction, refers to the total value of the means of production consumed in a production cycle: raw materials, fixed capital depreciation, fuel, and so on, inputs that undergo no quantitative alteration in value during the production process.⁵⁷ There is a great difference between *stocks* and *flows* of value, however. On the one hand, 'fixed capital stock' (fixed constant capital indicated by a capitalized C) represents the 'relatively enduring' productive powers of the social capital. On the other, the constant capital *flow* refers to circulating elements that are consumed in the production process but whose value is preserved and transferred to the new output. More generally, the constant capital flow may be said to encompass all of the *non-productive-labour* costs of production and reproduction (indicated by a lower-case c).

⁵⁵ Marx 1992, p. 159.

⁵⁶ Marx 1992, pp. 110-117. Moreover, the '–' represent transfers of value while the '...' represent stages or pauses within the production process in which labour and capital come together in the production of commodities for surplus-value. Furthermore, a more illustrative circuit of capital follows: $M - C [(c+v)] (MP + L) \dots P \dots C^\wedge [s] - M^\wedge$ [realization].

⁵⁷ Marx 1976, p. 317.

Variable capital (v) is a *flow* of new value which is produced by human labour, or more specifically, *productive living-labour* (see the next chapter for the distinction between productive and unproductive labour). Variable capital is defined as the social cost needed to reproduce aggregate productive labour-power: it being equal to the wage-bill of productive workers. Marx considered the capital invested to employ productive workers as *variable* because it alone can create more value than it represents at the beginning of production

In sum, productive living-labour (v) is the source of all new value under capitalism.⁵⁸ The *realization* of commodity prices (rooted in the sphere of exchange) is *not* necessarily an automatic process, but it is a necessary step in order for expanded reproduction to take place. Before I progress further, however, let me briefly illustrate the phenomenon of capitalist production by looking at two hypothetical sectors of a capitalist economy. Both sector A and sector B begin with *a total capital of 440* and produce an *annual output of 40* each.

Sector A: 40

$C = 300 \ V = 80 \ S = 60$

Sector B: 40

$C = 300 \ V = 80 \ S = 60$

The total capital across the economy in this example is 880 and total output is 80. This means that the unit-price is equal to 11 (i.e., $880/80 = 11$). Each sector therefore realizes (40×11) commodities at a total of 440 and therefore possesses a profit rate of 15.7 percent (i.e., $(440 - 380)/380$). Another way of looking at this is if $r = s/(c+v)$ then: $60/[300+80] = 15.7$.

⁵⁸ Many empirical studies have verified the strength of the labour theory of value core postulate that living labour is the sole source of all *new* value, indeed proving that the great majority of costs can still be reduced to those of labour. For one strong example, see Shaikh 1994: *The Empirical Strength of the Labour Theory of Value*.

Normally, the costs associated with wages (v) are not included in the denominator of the Marxian rate of profit (r). Because we are working at the level of individual sectors of the economy, however, and not looking at the economy as a whole, it can be appropriate to include variable capital in the denominator for this example.

Nevertheless, to further illustrate this process in a competitive market environment and how it impacts profitability, let us say to capture a greater portion of the market that sector A innovates (*) the following year and B does not.

Sector A*: output *now at 50*.

$$C = 340 \quad V = 80 \quad S = 60$$

Sector B: output *remains at 40*.

$$C = 300 \quad V = 80 \quad S = 60$$

The total capital is now 920, and total output is 90 between these two sectors. The unit-price is now 10.2 ($920/90 = 10.2$). As A* realizes (50×10.2) 510 and B realizes (40×10.2) 408, B's profit rate falls to 7.3 percent ($((408-380)/380)$); meanwhile, the profit rate of A* has actually risen from 15.7 to 21 percent ($((510-420)/420)$) despite the fact that its technological composition also increased.⁵⁹ Thus, through productive innovation which increases turnovers, output, travel-speed, etc., one capital – not unlike whole nations' social capitals – is able to increase their profit rate at the expense of another. However, if the *economy-wide* technological composition of capital increases, then profitability across the board will fall according to Marx's law.

⁵⁹ Carchedi *n.d.* Other things being equal, if the technological composition of a capital increases, its rate of profit falls. The technological composition (C/v) for sector A was 3.75. Following innovation, however, sector A*'s rose to 4.25, and because the rate of exploitation (s/v) remained equal at .75, A*'s rate of profit should have fallen, as per Marx's law. This is one simple illustration of the value-theoretic and the contradiction which exists between the micro and the macro level in regard to the actuality of Marx's law and its impact on individual capitals compared to the economy as a whole.

Theories of Crisis and Marx's "Famous Law"

The most popular marginalist currents of the past half-century, the orthodox "supply side" and the heterodox "demand-side," either uphold or reject Say's Law.⁶⁰ Say's Law states that the production of a given quantity of commodities leads to the creation of enough income to purchase those same commodities (i.e., supply generates its own demand).⁶¹ At the level of the whole economy, the "supply-side" orthodoxy believes that economic growth under capitalism is driven by "the profit-maximizing utilization of the stock of capital and the full employment of the stock of labour."⁶² In this framework, economic crises cannot be the result of "overproduction." If supply fails to keep up with demand, crises must then be the result of a rising strength of labour that squeezes profits. This rather unscientific and ideological outlook understands that profits are the lifeblood of capitalism, but they paradoxically conceive profit – at least at the macro-level – as something virtually erased by unknown and inexorable economic forces.⁶³ Indeed, profit is conceived not as an economic 'surplus' at all, but rather as a 'return' on capitalist risk-taking.

At the same level of abstraction, the "demand-side" heterodoxy believes that economic growth under capitalism is driven by aggregate investment and consumption.⁶⁴ In this sense, a crisis of "overproduction" occurs because there is deficient 'effective demand' (i.e., a lack of aggregate purchasing power backed by money in the hands of consumers). In other words, this is an *underconsumptionist* theory of crisis because it posits that *demand fails to keep up with supply*.

⁶⁰ Foley 1985.

⁶¹ Smith 2018, p. 256.

⁶² Shaikh 2016, pp. 615-16

⁶³ See Obrinsky 1983.

⁶⁴ Shaikh 2016, p. 616.

Both the supply-side and the demand-side of this debate lack an adequate theory of macro-profits, instead conceiving prices as a natural consequence of exchange relations in a state of constant equilibrium. This is done by upholding i) the Smithian ‘price trinity’ (see the preface), ii) a version of Say’s Law that treats the income paid to workers (in the wage-form) as equal to the total value they produce.⁶⁵

While Marx recognized that capitalism was the first mode of production struck by recurrent crises of “overproduction,” he saw that such crises take on a contradictory form where too many use-values are produced relative – *not to* ‘effective demand’ – but to the production of exchange-values. In other words, because the production process becomes overwhelmingly dominated by ‘dead labour’ in the form of constant capital, commodities contain less and less surplus value.. While fully rejecting Say’s law, Marx held an understanding of capitalist crisis that is actually *underproductionist* – that is, crises are rooted in the *underproduction* of adequate volumes of surplus-value relative to capital invested. His analysis revealed that at its core capitalist crisis involves a ‘crisis of valorization’ rather than a ‘crisis of realization’, which exists primarily at the level of individual firms and refers to the realizability of set prices.⁶⁶

These considerations bring us to Marx’s famous *law of the tendency of the rate of profit to fall* (LTRPF). It proceeds as follows: on the *micro*-level, competition between individual capitalist firms in the market compels each of them to reduce costs per unit of output by increasing the technological composition of their capitals through the introduction of sophisticated, productivity-enhancing technologies that displace living labour. While this benefits individual capitals, on the *macro*-level this *translates* into the wide-spread displacement

⁶⁵ Obrinsky 1983, p. 3.

⁶⁶ For empirical verification that the problems of capitalism are rooted in a crisis of valorization and not in a lack of demand, or a ‘crisis of price realization’, refer to the figure in Appendix B.a.

of living-labour from the production process, thereby reducing the amount of new and surplus-value added to the economy.⁶⁷ So, in turn, the same dynamics that bring about an accelerated accumulation of capital and therefore an increase in the total mass of surplus-value also produce a tendential fall in the average rate of profit because there is a tendency for the ratio of ‘dead-‘ to ‘living-labour’ to rise over time.

The rate at which this valorization process is carried out – that is, the rate of return on capital invested – is indicated by the quantitative value-ratio formulated as total surplus-value over total investment in the stock of constant capital. This is the Marxian ‘average rate of profit’ (in value terms: r or $ARP = s/C$).⁶⁸ And the contradiction between the forces and the relations of capitalist production – hence, the root of capitalist crisis – is expressed through fluctuations in the quantitative value-ratio: the ‘value composition of capital’ (in value terms: $VCC = C/v$) and the ‘organic composition of capital’ (in value terms: $OCC = C/(s+v)$).

The ‘Countertendencies’

According to Marxist theory, the average rate of profit will fluctuate greatly overtime due to various ‘countervailing forces’ or countertendencies. Marx suggested that it will recover primarily by means of the destruction/devaluation of capital *as a result of economic crises*, but over a long period, at least globally, it will still evince a secular downward trend.⁶⁹ This implies that economic slumps will worsen insofar as capitalism itself suffers from a long-term malaise, and in response to such malaise new mitigating factors will need to be introduced (e.g., reduced wages and/or living standards, financialization and consumer debt) as periods of prosperity

⁶⁷ If productivity growth in computers had been completely absent, productivity growth would have declined since 1980. Industries that increase computer usage, do this by substituting away from employment and wages. So as high-wage workers use more computers, etc., this is done only at the expense of employing less low-skilled and low wage workers. See Lee and Shin 2018.

⁶⁸ Marx 1992, p. 355.

⁶⁹ Smith 2010, p. 52-54.

become less and less robust. It is precisely the existence of these countertendencies that there is a *tendency* for the average rate of profit to decline to begin with because without it would decline precipitously.⁷⁰ And this is precisely the reason why the countertendencies must be considered when looking at the LTRPF.

Marx's law can be attenuated or even arrested by any of the following countertendencies which serve to undermine a rise in the 'organic composition of capital': 1) increasing the intensity of the exploitation of the workforce; 2) reducing wages below their value, which is only a short-lived phenomenon; 3) the cheapening of the elements of production; 4) relative overpopulation; and 5) foreign trade.⁷¹ Other things like imperial war for example can lead to a recovery in one nations' profit rate at the expense of another nations'.

Under capitalism, there is a tendency for the 'value composition of capital' ($VCC = C/v$) to rise, increasing productivity and output but reducing profitability because investment in the means of production (C) is rising faster than in productive labour-power (v), the latter being the source of surplus-value (s). A counter-tendential rise in the 'rate of surplus-value' ($RSV = s/v$) can lead to a recovery in profitability if it rises faster than the VCC. But there are finite limits to surplus-value extraction, such as the length of the work-day and the fact that exploitation leads to worker resistance. But in the end if the 'organic composition of capital' rises ($OCC = C/s+v$) – whose formula captures the production of surplus-value – the rate of profit will fall, other things being equal. Marx's rather correct prognosis concerning capitalism's historical trajectory is

⁷⁰ Marx 1992, p. 349; Kliman 2011. Moreover, this should not be taken as *fatalistic*. Marx's LTRPF is not meant to imply that the system will necessarily collapse. But rather that the system is fundamentally geared to continuously "shoot itself in the foot" – that the class struggle leads to proletarian revolution.

⁷¹ Smith 2010, pp. 54-55.

fundamentally rooted in his understanding of a falling ARP accompanied by a rising OCC. By the end of the present study, this essential point will become much more evident.

Marx asserted that falling profitability is an indirect cause of, and overcome by, capitalism's crisis tendency.⁷² This is what Marx referred to as the 'devaluation or destruction of capital' and it is the chief consequence of economic crises. This devaluation happens through falling profits and rising debts, rising unemployment and widespread bankruptcies where strong businesses purchase cheap assets from other failed businesses.⁷³ It also occurs through the destruction of *physical capital*, such as during war; but also during recessions and depressions as machines, tools and various inputs lay idle, deteriorate and becomes obsolete.⁷⁴

None of this means that a falling rate of profit is fully nullified by any of the countertendencies, nor does it mean that there has been a sufficient recovery in the ARP at some point in time contrary to a long-term secular decline.⁷⁵ It just means that any rigours rate of profit study by any serious Marxist must look at the countertendencies as well as other exogenous factors, such as geopolitical struggle, the tax-rate, financial (de)regulation, and so on.

Conclusion

To further exemplify the failures of the mainstream economic current, failures which stem from their theories of value/price and capitalist crisis, take for instance the vulgarities of the neoclassical, Knut Wicksell. In the late 1800s, Wicksell envisioned a future capitalist world where landlords hire capitalists and workers, where capitalists hire workers and landlords, and

⁷² Kliman 2011.

⁷³ Moseley 2000.

⁷⁴ To get what they are worth per annum, and to ensure longevity, machines, tools and various material inputs require continuous use and maintenance or they cease working properly. For example, if you leave a parked vehicle for too long it will deteriorate and eventually cease functioning. It rusts, the computer system fails, the battery dies, the oil cokes, the exhaust system leaks and so on and so forth.

⁷⁵ Kliman 2007, p. 31

where workers somehow possess the ability to hire at a whim both capitalists and landlords.⁷⁶

Unsurprisingly, Wicksell's rather naïve prognosis about the evolution of the capitalist profit system never came to fruition. Or, take the dubious economism of Keynes himself writing in 1930 that with little assistance capitalism's historical mission (its evolution due to technological advancement set in motion by market competition) would force down the average work-week to 15-hours by the turn of the century.⁷⁷ Like Wicksell, Keynes' predictions have yet to pass – and just like Wicksell, “Lord Keynes” is never judged on his rather egregious and obviously failed predictions. On the contrary, however, Marx's empirically verifiable forecasts appear to have stood the test of time. Yet, similar to the likes of Wicksell and Keynes, Marx is rarely judged on the grounds of his predictions.

Nevertheless, some believe that Marx abandoned the LTRPF in the later part of his life due to some so-called inconsistency with the labour theory of value. But, there exists considerable evidence which confirms Marx's fidelity to both empirical inquiry and the LTRPF itself. Most notably, recent evidence has emerged that it was actually in the attempt to improve Marx's prose which inadvertently downplayed the significance of the presence of the ‘law itself’ compared to the countertendencies as Engels compiled and edited *Capital II* and *III*.⁷⁸ For Marx, the law remained imperative to the overall critique of capitalism and is a historically specific expression of the central proposition of historical materialism: that every mode of production emerges to further develop the productive forces of society and only when it can no longer fulfill this task then a different and higher mode of production arises.⁷⁹

The law demonstrates the historical limitations of the capitalist market system: that this

⁷⁶ Obrinsky 1983, p. 48.

⁷⁷ Keynes 1930, p. 5.

⁷⁸ Roberts 2018b, pp. 23-25.

⁷⁹ Mage 1963.

anarchistic and malicious system of commodity production for private profit is to be eventually transformed and replaced in full – through revolution spearheaded by the working-class – with an egalitarian and socialized global system tailored to meeting the basic needs of all. In turn, such internationalized socialist system with production reorganized on a global scale – and where the combined productive powers of society become the ‘real wealth of individuals’ as disposable free time replaces the private possession of abstract labour-time – forges the necessary objective social conditions for the eventual emergence of a classless borderless communist utopia.⁸⁰

⁸⁰ Smith 2010, p. 4.

Chapter 2: A Theoretical Survey of Various Issues in the Field of Marxist Political Economy

In order to ‘test’ the empirical actuality of Marx’s value-theoretical analysis, it is crucial to engage with his concepts at a serious theoretical level. As theory *informs* practice, meaning that the way that Marx is interpreted directly informs how his concepts are used for purposes of empirical analysis. This chapter presents a theoretical survey of the relevant literature pertaining to various issues, perspectives and approaches to operationalizing Marx’s concepts as empirical variables today. For reasons regarding length, simplicity and clarity, I refrain from reviewing anything extensively algebraic or theoretical (like the so-called “transformation problem”).⁸¹ Instead, I engage in a brief survey which focuses on some common (but important) misconceptions within the heterogeneous field of Marxian political economy. While the previous chapter was introductory, this chapter as well as the following chapter can be understood as conceptual “blueprints” indicative of the theoretical justification for how I specify Marx’s variables as found in the fourth chapter of this study.

This chapter is divided into four principal sections. The tenacious effect of a declining *average rate of profit* on a capitalist economy cannot be overstated. For this reason, I begin by first discussing the role of the *average rate of profit* for the ‘social capital’ as the analytical bedrock to a Marxist-fundamentalist examination of any capitalist valorization process. The second section challenges the hegemony of ‘neoliberal financialization’ by introducing the

⁸¹ The so-called “transformation problem” – that is, the transformation of values into money-prices – has been debated exhaustingly by non-Marxists (primarily, by neo-Sraffian economists) and defenders of Marx’s value theory. This so-called “problem” is inherently anti-dialectical, shown to involve a methodological individualism that disregards micro-macro as well as production-circulation contradictions, and a non-temporalist, pure equilibrium model. For a rigorous defence of Marx’s value theory see: Moseley’s new 2016 book and, notably, Kliman 2007.

concept of *fictitious capital* and its adverse effect on the economy – that is to say, so-called “profits” associated with financial markets that falsely represent newly produced surplus-value. The third section reviews Marx’s critique of commodity fetishism and applies it to various “physicalist” and “individualist” elucidations of Marx’s analysis of the commodity-form. And finally, the fourth section discusses the widely debated concept of ‘unproductive labour’ (such as circulation, commercial, and state expenses) under contemporary capitalism and its place in Marx’s theory.

The Average Rate of Profit and the Social Capital

The *average rate of profit* is a broad profitability measurement that spans across the different industries and branches of a given nation’s capitalist economy, or, rather, a given ‘social capital’.⁸² An industry or branch that invests in innovative technologies that increases production power while reducing labour-costs has a high ‘organic composition of capital’. Such “high-octane” and technologically sophisticated capitals are able to out-perform their less sophisticated competitors in the market by lowering the costs of production and increasing market share, permitting them to capture a portion of surplus-value that was produced elsewhere in the economy.⁸³ This is because each firm does not receive in return all the surplus-value generated by the exploitation of the workers that it employs but receives instead only a particular proportion of the total mass of surplus-value (drawn even from the global pool of surplus-value) based on its ‘organic composition of capital’ (OCC). In turn, this leads to the formation of an average or general rate of profit across the economy as a whole. Otherwise known as the theory of the *equalization of profit rates* through market competition – that is, the redistribution of surplus-

⁸² Mandel 1968.

⁸³ Ibid.

value among competing firms, both productive and unproductive firms, and the realization of surplus-value in price-form.⁸⁴

While the scope of Marx's critical inquiry led him down various avenues of theoretical and empirical exploration, he was ultimately concerned with viewing capitalism as a totality, as a perpetual valorization process driven by the profit motive: from the banks and production to circulation, to consumption and back to production to start over again.⁸⁵ A great deal of Marxian political economy today explores alternative ways to measure aggregate profitability in order to analyze capitalism and 'test' Marx's forecasts. Yet, some have found it useful to abstract from certain spheres of the economy, either due to a lack of available data or to examine the economic phenomena of their choice, or, perhaps, they decide to abstract from certain spheres because that is where their interpretation of Marx directs them.

For the heterodox political economists and value theorists who belong to the Marxist-fundamentalist camp, they are most committed to an analysis of capitalism that is predicated on Marx's *fundamental* value categories and value ratios. It should be noted that this understanding of "fundamentalism" is not the religious type and has nothing to do with parochiality. But, it is simply a dedication to Marx's fundamental analysis of the value-form in order to strengthen the analysis of the value-magnitude.⁸⁶ In this vein, the Marxist-fundamentalist camp upholds two core postulates. First, that a falling *average* rate of profit (ARP) must be accompanied by an *economy-wide* rising organic composition of capital (OCC); in this sense, the ARP functions as

⁸⁴ Marx 1991. Furthermore, Marx often referred to the profit rate of all capitals as the 'general rate of profit' or capitalism's 'general law'.

⁸⁵ Hegel's influence over Marx is overwhelmingly apparent, as the Hegelian tradition states: "The truth is the whole."

⁸⁵ Smith 2018, p. 123.

⁸⁵ Ibid.

⁸⁶ Ibid.

an *indirect* cause of capitalist crisis and recovers primarily by way of recurrent crisis via the *destruction of capital*. Second, that Marx's historical-materialist method and his critique of commodity fetishism are of central importance to any serious study of capitalist production conducted *à la* Marx.⁸⁷

Nonetheless, some ostensible Marxists claim to adhere to the fundamentalist camp but think it necessary to abstract from finance capital by conducting a 'non-financial' ARP measurement.⁸⁸ In their eyes, this procedure is justified due to the proliferation of financial profits over the past 30 to 40 years as a result of the widespread expansion of debt. As these *fictitious "profits"* are problematically aggregated in the US National Income Accounts (NIA) along with corporate profits, falsely representing newly produced surplus-value. From the standpoint of the system as a whole, however, the credit system is a *necessary* component of a capitalist economy and therefore by abstracting from finance one abstracts from viewing capitalism as a totality.

Some ostensible fundamentalists also believe that abstracting from commercial, circulation and government is also necessary in order to 'test Marx'.⁸⁹ By abstracting from these 'unproductive' sectors of the economy this procedure measures the ARP on 'productive capital' alone. After all, the analysis of the struggle over production is the beginning point of all Marxian analysis; and after all, it is 'productive capital' where surplus-value is first extracted from workers. But again, it is impossible for surplus-value to be realized and then reinvested back into production to begin again unless the bearers of value (the commodities) are transported, stocked and shelved, and finally sold to consumers. And just because production is the starting point to a

⁸⁷ Ibid.

⁸⁸ See Shaikh 2010 and Smith and Butovsky 2018.

⁸⁹ Or, by treating all labour as productive of surplus-value. See Laibman 1991.

Marxian analysis does not mean it is adequate in itself. Because the circulation/realization process is a necessary component of the system, by abstracting from it once again one abstracts from viewing capitalism as a totality. In order to adequately ‘test Marx’ and adhere to the fundamental premise of a falling ARP accompanied by an *economy-wide* rising OCC, one must therefore look to an ARP measurement for the ‘social capital whole’.⁹⁰

The ARP can be best defined as the division of the total amount of surplus-value, produced by the *collective* exploitation of the work-force, by the total amount of social capital.⁹¹ In this sense, the ‘social capital’ is the aggregate relationship between constant capital and variable capital (*c:v*), encompassing a valorization process on part of all the necessary spheres of capitalist production and reproduction across a given capitalist nation.⁹² The social capital takes on the appearance of a nation-state and is also *protected* by the nation-state system, all nations’ social capitals forming the global capital. Often one nation’s social capital will attempt to profit off another – such as prying, pillaging, or going to war with other nations – all in search for new avenues of profit at the expense of other nations’ ARP: this is imperialism. For the purpose of this study, it should be understood as a general “barometer” for the economic condition of a nation’s social capital and for the immediate proximity of that nation’s social capital.

Take for example a vigorous capitalist economy with a high ARP. In such times of prosperity there rarely are any significant barriers to surplus-value production; even struggling firms with below average profitability are often kept alive by a high ARP. But when it falls, especially when it crashes to a low level, the mass of profits decreases and firms with low profits

⁹⁰ Marx 1991, p. 274. To capture the combined productivity of labour as a whole, the productive and unproductive capitals must be taken into account for the ARP. From the fundamentalist viewpoint, a progressively rising organic composition of capital is simply an expression in value terms of the progressive development of the social productivity of labour for a social capital (Mandel 1991).

⁹¹ Marx 1991, p. 54.

⁹² Mage 1963, pp. 31.

face serious barriers and often collapse under market pressures.⁹³ In turn, the strongest firms can attempt to realize as much profits as they can, or, for instance, cut costs to purchase assets from other failed firms. As Marxist economist Andrew Kliman points out, a decline in the ARP creates the societal conditions necessary for an eruption of economic malfunctions and bankruptcies that breed crises, crises that lead to corporate buyouts and lower wages – and ultimately a recovery in the rate of profit.⁹⁴ A crisis may occur after the ARP falls, or even as the ARP falls, and can also occur during a recovery after the ARP falls and begins to rise, as it often does immediately before crisis. But a decline in the ARP remains an *indirect* casual mechanism which induces crisis. And it is an *indirect* cause because when profitability is low, investment halts, expansion is inhibited, and social reproduction suffers. And so when profitability is high, so too are productive investments – in employment, capital goods, intermediate inputs, etc. – and the economy is robust.

In the end what matters is that the ARP is actually capable of showing (both theoretically and empirically) the growing dysfunctionality of the system insofar as the system, at one and the same time, is becoming less and less capable of meeting human needs *while* the forces of production are becoming ever more sophisticated. Marxist economist Michael Roberts believes that the subtle differences in how much of the political economy in the Marxist tradition measures the law of profitability is of little importance. This is because he observes that almost all empirical measures of the *Marxian LTRPF* (formulated as s/C or $s/C+v$) for the US economy as well as many other “advanced” economies around the globe have shown a long-term secular downward trend over the last century. This downward trend, he continues, is accompanied by a

⁹³ Kliman 2011, p. 17.

⁹⁴ Ibid.

rising organic composition of capital and rate of surplus-value, as Marx projected as early as the mid-19th century.⁹⁵ Interestingly, the fact that such a heterogeneous group of Marxists have produced numerous studies that verify falling profits as the result of technological change is exemplary of the accuracy and explanatory power of Marx's forecasts – further demonstrating the empirical relevance and the overall importance of his value-form analysis of the value-magnitude.

The 'Era of Fictitious Capital'

Simonde de Sismondi first recognized the phenomenon of fictitious capital and its adverse effect on the economy in 1815; and next was Marx in his discussion of the credit system, as compiled by Engels, in the third volume of *Capital*.⁹⁶ Both of them regarded *fictitious capital* as 'illusionary wealth' possessing no real intrinsic value.

The financialization of the advanced capitalist economies is no accident. In an article which taps into the Marxist critique of neoliberal financialization, Sergio Izquierdo and Abelardo Flores describe the proliferation of finance capital as a renewed hegemony of the various financial forms of valorization as a historically specific product *resulting* from an ongoing crisis of profitability.⁹⁷ Consequently, a large amount of investment has been and is being redirected away from the productive sphere toward the financial sectors of the economy, as they have the highest rate of return and thus yield the greatest profits to the elites who can afford such a luxury. As hedge-fund giant Ray Dalio said as the US housing-bubble soared in the mid-2000s: "The money that is made from manufacturing stuff is a pittance in comparison to the amount of money

⁹⁵ Roberts 2016, p. 275.

⁹⁶ Sismondi 1997[1815]; Marx 1991.

⁹⁷ Izquierdo and Flores 2017, p. 489.

made from shuffling money around.”⁹⁸ For instance, some hedge-funds are even capable of achieving an average annual rate of return on speculative investment as great as 30 percent.⁹⁹

Since the late 1970s decay in profitability and the subsequent neoliberalization of the economy, capital has been increasingly hesitant to make productive investments (investment in productive labour and assets). From the point of view of the wealthy investor, for example, there is a much greater financial risk investing in research and development because it requires a larger upfront and long-term investment.¹⁰⁰ Whereas the appeal of financial assets (like stocks and bonds), comes from their particular flexibility in allowing for either short- or long-term investments, without the need to interact with works or the environment, etc.

Michael Roberts draws on research which shows that over the past 30 years the rate of ‘US corporate fixed-capital formation’ has increased at a rate much slower than corporate profits.¹⁰¹ Thereby confirming that resources are increasingly being channeled into financial assets to beget money rather than into productive assets that would generate increasing volumes of ‘actual’ surplus-value (‘actual’ in the sense that it is reflective of aggregate surplus-labour-time performed in the economy). Moreover, research also shows that if the ratio of profits invested in productive capital rather than financial markets returned to its 1979 level, the result would be an increase in investment that would approach 10% of GDP (in 2010) – enough to resolve the past 2008 crisis.¹⁰² In fact, in the ‘era of fictitious capital’ the majority of crises are

⁹⁸ Wenz 2012, p. 123.

⁹⁹ See Kolhatkar 2017, p. xvii.

¹⁰⁰ Smith 2018. As opposed to what is considered “real” or “backed” (or ‘actual’) social value under capitalism: *previously existing value* (PEV), *new value* (NV) and *surplus-value* (SV).

¹⁰¹ Roberts 2018a, pp 471-2.

¹⁰² Ibid.

caused by economic malfunctions as a result of reckless money-folding and financial instability.¹⁰³

The US economy has both the highest level of debt and the highest level of financial speculation, often with low interest-rates for a protracted period of time. From the Marxist point of view, this financialization is conceived as something internal to the capitalist system based on the expansion of relations of credit and debt (i.e., claims on current and future income, or *anticipated future values* (AFV)).¹⁰⁴ As these financial relations are essentially *valueless* relations from the standpoint of the social capital, as value under capitalism is measured by the yardstick of ‘socially necessary abstract labour-time’, fictitious capital is essentially money-capital seeking to enlarge itself through speculative claims on future income, which enables an economy to appear much larger than the non-financial assets that underwrite it.¹⁰⁵

So, speculation in financial assets and other transfers of wealth create so-called “profits” less the expenditure of labour-power and therefore constitute falsely created wealth garnered on guesses and false promises.¹⁰⁶ The main point here is that the growth of financial profits has become a barrier to capital accumulation, not amounting to an increase in the ‘actual’ magnitude of surplus-value.¹⁰⁷ As these fictitious “profits” are problematically aggregated in the National Income Accounts (NIA) as “real booked” corporate profits, in this sense, the proliferation of

¹⁰³ Mishkin and White 2002. These authors observe that financial instability is the primary culprit behind the past 15 economic crises in the US since the beginning of the 20th century.

¹⁰⁴ Roberts 2017; Smith 2018.

¹⁰⁵ Smith and Butovsky 2018, p. 323

¹⁰⁶ *Fictitious capital* has a use to the wealthy capitalist who is able to continuously participate in market speculation using it; thus, increasing riches, social status, and power. Presumably, *fictitious capital* could be reinvested in the production process, functioning as interest-bearing-capital forming money-capital or credit, which would later lead to the production of new value, proportionally reducing its *fictitiousness* by “paying back” some of its so-called “value” based on future profits.

¹⁰⁷ Foley 2013, p. 204.

fictitious capital has become a serious obstacle in measuring the ARP in ‘actual’ terms, which regulates ‘prices of production’ and therefore ‘actual’ economic growth.

The hegemony of the marginalist conception of ‘value/price’ and the “bourgeois” accounting method used by the NIA serves to legitimate the acute financialization of the economy. So in order to calculate a more accurate ARP and to include finance capital but not its distorting “profits,” one must then reduce finance capital’s profit rate to be proportional to its fixed capital assets compared to its “paper assets.” In the following chapters, I attempt this procedure of ‘normalizing’ financial profits which yields interesting findings from the 1980s onwards.

The Concept of Fetishism in Marx

In his critique of the classical political economists’ frequent inversion or confusion of what is ‘natural’ and what is ‘social’, Marx elucidated the hidden essence of the capitalist production process – that, above all else, value is a social relation and its substance is ‘socially necessary abstract labour time’. This is because Marx, with his dialectical-monistic approach, breaks from the traditional bourgeois outlook by viewing the social and the economic as interrelated elements of a unified material reality. Marx’s later development of his critique of the fetishism of commodities grew out of, and is reminiscent of, his earlier critique of alienation.¹⁰⁸ The term fetishism can be found in Marx’s work in 1844, 1856 and 1859 before he further developed it in his analysis of the commodity in *Capital I*.

Commodity fetishism can be defined as the illusory notion that the economic relations of production are *not* inherently social in character but are mere relations between money and

¹⁰⁸ Smith 2014, p. 105. Furthermore, debate exists between those who say there is no continuity between the “young” and “old” Marx, and those that say there is continuity. For reasons I will not go into now, my own position sides much more with the latter; for example, see Smith 2014, chapter 3.

commodities which takes place in the ‘sphere of exchange’. Marx first referred to the term *fetishism* (i.e. a confusion between the social and the natural, or, the transformation of subjective values into objective ones) in 1842 in his attack on Karl Hermes. As Marx wrote then: “Fantasy arising from desire deceives the fetish-worshipper into believing that an ‘inanimate object’ will give up its natural character in order to comply with [their own] desires.”¹⁰⁹

Like the religious fetishism of the feudal age where the existence of God masked the origins of human-kind and the essential social relations which underpin social reproduction, capitalist exchange relations conceal the commodity-form’s social character.¹¹⁰ This compels people to look past social labour as the source of value and obscures the fact that social reproduction requires a wide-spread and organized division of labour where any individual person at any given time is highly reliant on an interdependent social network made up of diverse, yet connected, individual people.¹¹¹

Productive Labour as Something Beyond ‘Physicalism’

In *Wealth of Nations*, Adam Smith refers to productive labour as the only labour type that can produce new value. Here, he only means the labour expended in the production of material and vendible objects, “which lasts [...] after that labour is past.”¹¹² Marx, however, the distinction between labour types is rooted in the social (class) position of the conscious actor – derived from the social relations of production.

When Marx refers to productive labour he does not adopt the standpoint of the individual capitalist. A cashier to the individual capitalist may be considered productive as the elasticity of this employee’s wage is the source of their profit. For Marx, however, he adopts the “macro

¹⁰⁹ Marx 1975, p. 189.

¹¹⁰ Fine and Saad-Filho 2004, p. 25.

¹¹¹ Foley 1986, p. 29

¹¹² Smith 1991, p. 295

standpoint” of the social capital as a whole. In this sense, productive labour augments the surplus product, the total mass of surplus-value, it is labour that is productive *for* capital (i.e., physical and/or mental living-labour that is employed and exploited by capital for the purpose of producing use-values for exchange in the market).¹¹³

It should now be clear that *productive* labour is not synonymous with *production-based* labour, or as Adam Smith incorrectly asserted: *manufacturing* labour. Manufacturing labour exists outside of, and it is not historically specific to, the capitalist mode of production. In turn, Marx stipulates that for labour to be considered productive it is not required to produce a corporeal object, as such a physicalist understanding of productive labour is a *fetishistic error*. Indeed, a commodity does not need to be physically vendible for it to be endowed with surplus-value. Marx exemplifies this while addressing the distinction between productive and unproductive labour in *Theories of Surplus-value*: “An actor for example, or even a clown, according to this definition, is a productive labourer if he works in the service of a capitalist (an entrepreneur) to whom he returns more labour than he receives from him in the form of wages.”¹¹⁴

Neither the services of the actor nor the clown produce a corporeal and vendible *object*, but they do produce an incorporeal *effect* that is exchanged for more money than the labourer is paid in wages in return (i.e., the creation of surplus-value through exploitation via the elasticity of the wage). Even though these entertainment or service workers produce an incorporeal effect, their labour is still considered productive from the standpoint of the social capital because it augments the total magnitude of surplus-value.

¹¹³ Smith 1984.

¹¹⁴ Marx 1976, p. 147.

The Specter of the Okishio Theorem

In response to the defense of the Okishio theorem by David Laibman and Duncan Foley, Andrew Kliman and Allan Freeman's critique marks the demise of the famous theorem that was commonly used to refute Marx's LTRPF. Kliman and Freeman write that "Marx's law of the tendential fall in profit rate is rigorous as stated, free from the 'logical errors' that have been attributed to it for more than a century."¹¹⁵ The two economists take this stance for two reasons: 1) because Okishio made the error of assuming input prices must be equal to output prices; 2) and because the authors, quite successfully, argue that it is possible for both the money and labour-value rates of profit to fall under the conditions that Okishio specified in his hypothesis.¹¹⁶

It was in 1961 when the Japanese economist, Nobuo Okishio, put forth his theorem that supposedly refuted Marx's law of falling profits. In sum, the Okishio Theorem proposes that *if* real wages remain constant and *if* capitalists invest in new technologies that cut costs and increase output, the average rate of profit must then rise. In a more recent debate, the heterodox economists Laibman and Foley decide to support this postulate, but they do so with a caveat: it is only the *material* rate of profit that must be higher than the old one if the real wage rate is constant while new cost-cutting technologies are introduced.¹¹⁷ For them, this is apparently all that the theorem, and for that matter Okishio himself, has ever claimed. But this answer is nonsense to Kliman and Freeman; they dismiss this claim as dishonest because the theorem has been generally accepted by many as something that wholly disproves Marx's 'law'.

¹¹⁵ Kliman and Freeman 2000, p. 285.

¹¹⁶ Ibid. Moreover, through means of financialization, quantitative easing, etc., the money rate of profit may diverge *greatly* from the value rate of profit.

¹¹⁷ Laibman 2000.

Although it was not a material rate of profit that concerned Marx, it is often falsely interpreted that way. Rather, Marx was concerned with a value rate of profit, as he eloquently described his idea over 150 years ago: “[the ARP stands for] the relative decline in the surplus labour appropriated in comparison with the mass of objectified labour that the living-labour sets in motion.”¹¹⁸ In a *fetishistic* error, the physicalist tradition assumes that the money rate of profit moves in tandem with the material rate of profit, and that in the end the latter (as a simultaneous valuation) is what governs productive investment and ‘actual’ economic growth.¹¹⁹ As Kliman and Freeman demonstrate, this is unverifiable because the claim that greater physical output equates to a rise in the rate of profit is clearly incorrect. And *if* such physicalism was correct, for example, then the unpaid labour of the actor or the clown in the previous example would not add to the total mass of surplus-value – their labour would have to be considered unproductive rather than productive.

In his 1991 book, Marxist economist Fred Moseley draws on, ironically, the earlier work of Duncan Foley in order to provide a critique of the theorem. Contrary to Okishio, he states, the majority of capitalist economies have rising real wages and increasing exploitation at the same time; meaning that real wages are growing, but at a much slower pace than productivity.¹²⁰ As such, when real wages and the rate of surplus-value both increase, as it does in most capitalist economies, then they fall into an “intermediate zone” in the theorem instead. Furthermore,

¹¹⁸ Marx, cited in Kliman and Freeman 2000, p. 290.

¹¹⁹ See Kliman and Freeman (2000, p. 289) for an interesting perspective on the physicalist tradition. Here, the authors write: “The economy in which it would be fun to be a proletarian is instead the physicalist one. Viable technological advance would provide ever more goodies for workers and capitalists alike to share. With real wages rising in line with productivity, the economy would go on indefinitely in its merry, crisis-free way. Backward producers would not suffer from technological changes, nor make their workers suffer, because they are producing just as much corn as before, and of course the corn “price” of corn can never fall.”

¹²⁰ Moseley 1991, p. 22. I mean not to imply that capitalism is in a state of good health just because real wages and productivity are rising – because that would be entirely untrue.

Moseley's own findings show that real wages as well as the rate of surplus-value had indeed increased in the US economy between the 1950s and 1980s (albeit, inconsistently). He adds, drawing again on Foley, that for economies set in this "intermediate zone" we cannot predict anything about the effect of technological change on the profit rate – a question answerable only by empirical investigation.¹²¹

Like Okishio himself, David Laibman follows suit in measuring aggregate profitability by omitting the costs of fixed capital in the denominator of the profit rate. This greatly reduces the costs of production, forcing the ARP trend upwards.¹²² In turn, I agree in full with Moseley when he states that the two restrictive conditions of the theorem – that real wages must remain constant and that capital only consists of circulating capital (the flow rather than the fixed component) – are unrealistic assumptions.¹²³

What is more, in his 2018 book, *Invisible Leviathan*, Murray Smith critiques the Okishian 'choice of technique argument' by citing the Marxist economist, Anwar Shaikh:

In his response to this 'choice of technique' argument, Shaikh suggests that Okishio's theorem merely underscores Marx's own thesis that 'the battle of competition is fought by the cheapening of commodities' (*Capital I*) and that 'the cheapest method of production will win out in the wars among capitals'. But there is a crucial *difference* between the 'cheapest method of production' *per unit of output* and the 'cheapest method' from the standpoint of *capital invested*.¹²⁴

Marx's profit rate is not a comparison between two *flow* variables but a ratio of a *flow* component to a *stock* component. Shaikh specifies that there is a clear distinction between the former, "profits in relation to capital used up in production" (Okishio), and the latter, "profits in

¹²¹ Moseley 1991, p. 58.

¹²² Kliman and Freeman 2000, p. 293. See footnote 4.

¹²³ Moseley 1991, p. 22

¹²⁴ Smith 2018, p. 251

relation to capital advanced” (Marx).¹²⁵ In reality, the costs of production from the point of view of the social capital are lowered *per unit of output* through a greater investment in the *fixed* means of production, and therefore they need to be included in the denominator of the ARP.¹²⁶

The omission of fixed constant capital (the fixed means of production) in the denominator of the rate of profit lends itself to ascribing fixed capital as something fixed to nature, something static and independent from human society, like a product of nature itself. Such a view perceives fixed capital as a relation between people and nature – as in, a relation of living labour to the “natural” conditions of production – instead of seeing fixed capital as a social product, or as a “mass of objectified labour put in motion by living labour” as Marx put it.¹²⁷ This is indicative of a static-model of economic analysis and methodological individualism which ignores micro-macro and production-circulation contradictions. So, in other words, abstracting from or taking the fixed means of production for granted in socio-economic analysis is a *fetishistic error* insofar as it confuses and subordinates a purely ‘natural’ production process to a purely ‘social’ exchange and circulation process.

All the same, *if* real wages did remain constant *and if* capitalists continued to invest in socially progressive technologies then *material output*, not profitability, may very well rise like Okishio’s theorem states. But, as we know, real wages do not remain constant but instead greatly depend on the ongoing class struggle; and a rise in material output does not mean that profitability will rise, too. In the end, Okishio’s theorem, which combines elaborate algebraic equations with unrealistic assumptions about the real world stands little chance against the empirical and theoretical arsenal of Marx’s value theory.

¹²⁵ Shaikh 1978, p. 242

¹²⁶ Ibid.

¹²⁷ Marx cited in Kliman and Freeman 2000, p. 290

From Commodity Fetishism to Capital Fetishism

The idea that Marx's value category of constant capital must be solely limited to the *physical* means of production is too a fetishistic error. Such a fetishism is found throughout much of the empirical work of many contemporary Marxists, whose utter refusal to accept the possibility that certain types of wage labour should be subsumed under an expanded "*unfetishized*" notion of constant capital, can be traced back to previous "physicalist" or "Smithian" presuppositions. By expanding the value category of constant capital beyond just the inclusion of *fixed assets* and *circulating input goods* (the means of production) it widens our theoretical scope and can permit additional empirical analysis that follows in the fundamentalist tradition.

Clearly the physicalist conception of productive labour is inadequate, as Marx has shown that the labour performed by a clown, a singer, or an actor in creating incorporeal use-values can all be productive of new, surplus-value under the right conditions of exploitation. Indeed, the economic relations of production are fundamentally social in character insofar as they constitute relations between people within the society-wide division of labour. As such, Murray Smith explains that constant capital "is *not* merely a value expression of its 'material' [or, physical] forms in the immediate process of production."¹²⁸ Just as it was to Marx, the total *social capital* consists of the *social relation* between constant capital and variable capital – constant capital being social in itself as a product of social labour. Constant capital is an expression of *previously existing values*, or previously expended labour-power managed and set in motion by living wage-labourers, and in which the capitalist class holds a monopoly over.

In a recent article by Charles Post, he attempts to analyze the historical development of plantation slavery and its place in the origins of US capitalism. Post recognizes that the *labour-*

¹²⁸ Smith 2018, p. 276 [*emphasis mine*].

power of plantation slaves are not what is purchased, but that the slave *labourers* themselves (as property) are, so instead of representing a form of labour-power they represent a form of *fixed constant capital* to the ruling planters.¹²⁹ Hence, by conceptually widening Marx's value category of constant capital by including in it living-slave-labour, Post's critical inquiry in the Marxist tradition is one example of a somewhat *unfetishized* understanding of Marx's value category of constant capital.

In the next section I address the theoretical issues pertaining to the concept of constant capital and certain forms of unproductive labour that can be allocated as an element of constant capital.¹³⁰

Unproductive Labour in Marx's Theory

Forms of unproductive labour (i.e. the maintenance, supervisory, and social "upkeep" labour-forms) date back to long before the full emergence of the capitalist mode of production. In *Capital II*, Marx recognized that bookkeeping labour is not something specific to a commodity-based society. In fact, in the Ancient Mediterranean, Crete bookkeepers used clay tablets engraved with hieroglyphic seals to record the various flows of goods.¹³¹ And across the ocean, the Incas of the early 15th century designated "economic accountants" called *quipucamayocs* to oversee logistics and resource use. Using *quipus* – a recording device made from knotted cords which were hung from a string – the Incans of South America could perform simple mathematical calculations and record information.¹³² What this means is that some forms of unproductive labour (the Ancient "accountants") as well as some archaic forms of unproductive tools and

¹²⁹ Post 2017, p. 183. See Post's 2017 article *Slavery and the New History of Capitalism* in the new radical labour journal *Catalyst*, edited by Robert Brenner and Vivek Chibber.

¹³⁰ Smith 2018. Furthermore, the allocation of unproductive expenses, both theoretical and methodological, is taken up next, as well as in chapter 3 and empirically in 4.

¹³¹ Kober 1948.

¹³² Hirst 2016; Manka 2016, p. 2.

equipment (the clay tablets and “quipus”) are trans-historical social phenomena whose historical evolution appears to be a epiphenomenon of the complex and ever increasing division of labour. As a result, the question then becomes: what are the specific forms of appearance that unproductive activities such as bookkeeping take under capitalism?

For Adam Smith, if the labour does not produce a corporeal and vendible object then that labour is essentially unproductive. For Thomas Malthus, nothing is more important than the distinction between productive and unproductive labour, and its importance flows ineluctably from the need to produce subsistence for a general population. According to Malthus, only productive labour augments the social surplus that provides for the populous as a whole. Meanwhile, in general agreement with Malthus, David Ricardo diverges from him at a lower level of abstraction in his appreciation of how some unproductive costs weigh on aggregate profitability.¹³³

As I have already indicated, Marx saw productive labour as the labour involved in the creation of “useful-effects” in commodity form, not as something restricted to agriculture or corporeal objects alone. As a result, his analysis revealed that a commodity’s value consists of the specific portion of social labour allocated by society to the sphere of production based upon capitalism’s ‘law of labour-value’. Again, a commodity’s value consists of the ‘socially necessary abstract labour-time’ required for its production; its price being a metamorphic form of its intrinsic value expressed as money.¹³⁴ From the standpoint of the social capital, some forms of unproductive labour are “socially” or “systemically” necessary for the full completion of the circuit of capital (i.e. after the commodity is produced, shipped, and shelved, it must finally be sold). If the value of the commodity is not realized through a transference of ownership – say, if

¹³³ Heilbroner 1998.

¹³⁴ Smith 2018, pp. 48-9.

it is not sold to a potential consumer – then the profits (the surplus-value expended in the production of the commodity) cannot return to the capitalist class for reinvestment.

The “Allocation Problem” in Marx’s Theory: Debate and Distinction

In the Fall, 1993, issue of *Science & Society* its editors refer to the question of the value specification of unproductive expenses within Marx’s theory as the “allocation problem.”¹³⁵ This problem arose as a product of material changes in the structure of the global economy, as services, sales and state sectors in many advanced economies expanded enormously throughout the post war period – doubling in the US alone between 1950 and 1980.¹³⁶ The increasing burden of unproductive expenses is partly to blame for the structural shifts in the advanced economies (neoliberalism and globalization) in the effort to revitalize profitability since the 1970s. In response to these structural changes, which led many political economists to rethink how the rate profit is examined in relation to the such ‘incidental overhead costs’ of the capitalist system, intense debate took place in the early 1990s between many scholars in relation to the allocation of unproductive expenses within Marx’s theory.

Here, the confusion originates with Marx’s own undertheorized specification of unproductive expenses. Stemming from the fact that the spheres of circulation and the state were much smaller in Marx’s day. Given this theoretical interpretation and allocation of unproductive expenses in modern Marxist political economy are problematic and highly contested, especially since at one time or another Marx refers to such unproductive expenses as a component of all three of his value categories (i.e., constant capital, variable capital and surplus-value).¹³⁷

¹³⁵ Editors, S&S 1993.

¹³⁶ Moseley 1991, p. xiv.

¹³⁷ At one-point Marx contradicts his definition of productive labour by treating commercial labour as variable capital, but in the context used here by Marx it is actually only to the commercial capitalist (the standpoint of the individual capital) that such labour is considered “variable” – and thus these labourers are subject to the same exploitation as their productive counterpart even though they are *unproductive* of surplus-value.

That said, interpreting Marx is dependant on the social standpoint from which one intends to proceed analytically. From the standpoint of the individual capitalist, unproductive labour can be “variable” in the sense that it involves the performance of *unpaid labour*; and yet from the standpoint of the social capital as a whole unproductive labour is then considered a *faux frais* (incidental cost) of capitalist production because it pertains directly to the social capital’s reproduction process.¹³⁸ The Marxist scholar, Shane Mage – a pioneering proponent of the constant capital ‘overhead cost approach’ to the allocation of unproductive expenses – writes that there is no distinct specification in Marx’s theory of the ‘necessary but unproductive expenses’ as a part of the constant capital.¹³⁹ Apart from a few ambiguous references, however, Marx never specifies them as components of variable capital or surplus-value either.

Critical of the distinction between the two types of labour in Marx’s theory, David Laibman argues that the productive labour and unproductive labour distinction is altogether dubious. Because Marxists have not come up with a useful and congruent definition of these labour types, he writes, the distinction is ‘devoid of operational significance’ and cannot be defended.¹⁴⁰ Much of Laibman’s skepticism arises from the difficulties in specifying what activities are productive and what activities are unproductive for capitalism. One can appreciate such scepticism, as differentiating between productive and unproductive activities can be incredibly complex. For example, a worker who pours and transports a cup of coffee (productive activity) and then completes the monetary transaction for that sale of that coffee (unproductive activity) is fulfilling both a productive and unproductive role.¹⁴¹

¹³⁸ Smith 1984.

¹³⁹ Mage 1963.

¹⁴⁰ Laibman 1993, p. 228.

¹⁴¹ There are various methodological issues pertaining to how productive and unproductive labour is empirically defined, specified and allocated.

In his critique of the productive-unproductive (P/UP) distinction, Laibman provides what he believes to be the three dominant definitions of unproductive labour used by political economists: 1) the *evaluative*, 2) the *socioeconomic*, and what I am concerned with here 3) the *analytical*. The *evaluative* definition obscurely conceptualizes unproductive labour as a waste or “leakage” of surplus-value. The *socio-economic* definition understands unproductive labour as a non-value producing form of labour which normally occurs outside of capitalist relations (i.e., domestic labour, petty commodity producers, and perhaps other luxury expenses). The *analytical* definition recognizes this type of labour as a specific category of workers who are employed and exploited by capital but are unproductive of surplus-value, and whose wages are paid for out of the social surplus. In this vein, Laibman claims that those who abide by this allocation of unproductive expenses as a non-profit component of surplus-value provide no independent rationale for doing so even though much of this labour is obviously systemically necessary.

In sum, Laibman does not believe the way that surplus-value is augmented by unproductive expenses is important, nor does he believe that an absolute increase or decrease in the total productive work-force is important.¹⁴² For Laibman, the P/UP distinction “leads at best to results that cannot be verified, because their meaning lies imprisoned within an arbitrary shell of unsubstantiated belief; and at worst to error.”¹⁴³

In a 1994 response to Laibman’s skepticism of the P/UP distinction, Fred Moseley writes that the distinction is required to fully grasp Marx’s LTRPF and is key to understanding capitalist crisis in relation to the rate of profit. He argues that Marx’s theory of unproductive labour can empirically explain why the rate of profit had not significantly increased since the

¹⁴² Ibid.

¹⁴³ Ibid., p. 232

mid-1970s; and, in turn, he continues to say that without any recovery in the profit rate the US economy may again degenerate into a deep state of depression.¹⁴⁴ Moreover, the Marxist Richard Wolff supports Moseley's proposition arguing that the P/UP distinction is a useful analytical dichotomy for the detection of important trends in capital accumulation.¹⁴⁵ And for Simon Mohun, the P/UP distinction is essential to the labour theory of value and thus for Marx's theory as a whole, and that any serious Marxist must emphasize the ontological uniqueness and complexities of the commodity: living labour-power.¹⁴⁶

Many Marxists who uphold the P/UP distinction firmly believe that Marx laid out a coherent theoretical framework that also permits empirical study, and that the final judgement on the distinction ought to be left up to the empirical exploratory power of the perspective. Informed by his own study of the post-war US economy (see next section), Moseley says that Marx's theory of unproductive labour can effectively explain many of the structural shifts that have taken place over the last 50 years in the advanced capitalist economies. He continues to say that Marx *did* make it clear that not all labour is productive of surplus-value, and that this distinction remains greatly underappreciated in much radical political economy today.

Although he follows what Laibman refers to as the *analytical* approach to conceptualizing unproductive expenses, Moseley accurately specifies the two types of labour that can be considered unproductive but also systemically necessary: 1) circulation-labour (such as sales, insurance, legal council, accounting, debt/credit relations and securities exchange) and 2) supervisory-labour (the control and supervision of productive workers, payroll record keeping,

¹⁴⁴ Moseley 1994, pp. 86-92. Unfortunately, a proposition that came to be true with the 2008 crisis, at the very least. Some also argue that capitalism fell into a state of "permanent depression" in the 1980s: see part ii of chapter 4 of this study. Also, see Roberts 2011.

¹⁴⁵ Wolff 1993.

¹⁴⁶ Mohun 1996.

top bureaucratic management, etc.).

The rationale for why circulation workers are considered unproductive for capitalism is rooted in *Capital I* where Marx assumes that the commodity exchange process is essentially an exchange of equivalent values.¹⁴⁷ If the process of exchange is based upon equivalent values, then neither new value nor surplus-value arises from the exchange of commodities; and because this process is entirely necessary for the completion of the reproduction process, even though no new value is produced in this phase, circulation labour is required for the commodity's exchange and therefore necessary from the standpoint of the social capital. The rationale for specifying supervisory positions as unproductive is found in the heart of Marx's theory as well. Moseley says that Marx recognized that a small number of supervisors or managers are required for the smooth-operation and coordination of production under capitalism. However, the vast majority of supervisory labour is employed for the purpose of dealing with a class antagonistic workplace – like controlling and disciplining the working class, making sure employees are working vigorously, productively, etc.¹⁴⁸ But what Moseley does not provide is a convincing rationale that adequately justifies his allocation of circulation and state workers as a deduction from surplus-value.

The astute economist, Anwar Shaikh, affirms that commercial expenses and indirect taxes (that is, unproductive expenses) are general business expenses from the standpoint of the individual owner; but from the standpoint of the social capital, these expenditures serve a necessary function from the point of view of the social capital so commercial capital and the capitalist state are to be regarded as indispensable for the system. "But", as he writes following

¹⁴⁷ Moseley 1991; Moseley 2000.

¹⁴⁸ Moseley 1991, p.56.

in the *analytical* vein and prepped with a dual-systems understanding of capitalist production, “it is necessary to *produce* the surplus product before it can be sold ...”¹⁴⁹ Many ostensible Marxist-fundamentalists, like Shaikh and Moseley, uphold this dualism which undermines the systemic necessity of these expenses. This has been long considered the conventional treatment of unproductive expenses in Marx’s theory: one seldom questioned or criticized, and one that has become *canonical* in every sense of the word.

Shaikh’s now canonical allocation of unproductive expenses as at once an ‘absolute deduction from’ and a ‘non-profit component of’ surplus-value is problematic. As Laibman argues, those who abide by what he calls the *analytical* approach provide no independent rationale even though much of this labour is systemically necessary from the point of view of the social capital. The implication of treating such expenses as a component of the already produced surplus-value is that these expenditures are non-value producing and unnecessary, arising only as “luxury expenses” or as “personal services” for capital.

The *analytical* definition and allocation of the unproductive wage-bill is almost entirely based upon a single passage from *Capital II* – a passage that is anything but transparent. It reads:

The replacement of [circulation] costs must come from the surplus product, and from the standpoint of the capitalist class as a whole it forms a deduction of surplus-value or surplus product [...].¹⁵⁰

In opposition to the idea that unproductive wages constitute an ‘absolute deduction’ from the pool of currently created surplus-value, the ‘overhead cost’ approach suggests that the proportion of a commodity’s surplus-value *shrinks* due to an increase in the cost of the elements of the constant capital flow. In this regard, Mage conveys that any reference in Marx to an ‘absolute

¹⁴⁹ Ibid.

¹⁵⁰ Marx 1992, p. 226.

deduction' from surplus-value is purely from the standpoint of the capitalist class (i.e., "class-centric") and certainly not from the standpoint of the social capital whole.¹⁵¹

*The Alternative: A Constant Capital 'Overhead Cost' Approach to SNUL*¹⁵²

Heavily influenced by Mage's pioneering study on the US economy, Murray Smith is critical of how unproductive expenses are defined and allocated in Marx's theory. While he upholds the P/UP distinction, Smith's view accords with Laibman's objection to the general subsumption of these expenses as a non-profit component of surplus-value. Such a treatment of unproductive labour as an element of the readily available surplus misleadingly implies that these incidental systemic costs remain a form of "luxury" expenditures deducted after the fact. For Smith, treating the unproductive costs of the reproduction process as 'luxury' expenditures underestimates their systemic necessity, while also encouraging 'revisionist' or 'reformist' political conclusions.¹⁵³

Smith stipulates that constant capital represents the factors of the production and reproduction process of capital which fill an indirect role in the production of surplus-value. It is undeniable that the means of production (such as a drill-press, iron or a conveyer-belt) are materially much different than living wage-workers, whether unproductive or productive. But it is a *fetishistic error* to conceptualize Marx's value categories based simply on the *physical* properties of the various elements of the total capital.¹⁵⁴ In defining the elements of the three basic value categories, what matters is the particular social relation expressed by each of them,

¹⁵¹ Mage 1963, p. 65.

¹⁵² To the best of my knowledge only a few Marxists abide by a *constant capital specification* of the indispensable unproductive expenses. First was actually Vaclav Holsovsky (1961, p. 38) in a piece called *Karl Marx and Soviet National Income Theory*, (and apparently again in a 1975 piece referred to in Laibman 1991). Next was Mage's dissertation in 1963 and subsequently Seymour in 1972. Following him was Murray Smith's MA thesis in 1984, since expanded into various pieces: see Smith 2010, appendix two, for example.

¹⁵³ Smith 2018.

¹⁵⁴ Smith 1984.

and their specific connection to valorization (i.e., to how new value is created and then manifested in the commodity output).

From Smith's perspective, only the unproductive expenses that are systemically necessary from the standpoint of the social capital should be subsumed under the value category of constant capital *flow*. Thus, many service, sales and 'social maintenance' workers, along with the great majority of state and para-state sector employees, represent 'systemically necessary unproductive labour' (SNUL) and their wages and associated expenses should therefore be allocated to an expanded notion of constant capital (i.e. as a component of the constant capital *flow*).¹⁵⁵ At the same time, many non-productive workers who perform labour *outside of the capital-wage labour relation* can be conceived as elements of the luxury consumption of the capitalist class – the cost of their labour resolved into the revenue component of surplus-value (consistent with Laibman's *socio-economic* definition of unproductive labour expenses).

There is a continuous battle between the productive sphere and the unproductive sphere(s) of the economy, new value originates in the productive sphere, but it is only when the commodity is sold does that value become realized.¹⁵⁶ The productive capitalist will always want the commercial capitalist to pay more and the commercial capitalist will always want to pay less. As competition between firms in the market intensifies *within* each sphere of the social capital, and as each of these capitalists attempt to grow their profits in the face of such competition, competition then intensifies *between* each of the spheres of the social capital.

On the surface of things, unproductive workers are not much different than their

¹⁵⁵ SNUL is specified as *c* not *C* and therefore not to be included in the denominator of the rate of profit (measured as s/C).

¹⁵⁶ Note: once the commodity is created but yet to be sold, the abstract labour expended in its production becomes the commodity's material substance, endowing it with 'social value'. Therefore, *during* the production process in which surplus-value is "contained" or "embodied" in the commodity and becomes 'potential-realized value' until it is eventually realized price-form. See Carchedi 2012.

productive counterpart. By their respective employers (unproductive capital), unproductive workers are purchased as variable capital as the elasticity of their wages remains their employers' source of profits. But how can this labour remain unproductive of surplus-value even though it can take the form of surplus labour? – well, because it is drawn from the surplus labour of productive workers. The rationale behind this lies in Marx's discussion of transfers of value between industrial capital and commercial capital.

“Just as [productive] capital makes profit by selling labour embodied and realized in commodities, for which it has not paid any equivalent,” Marx writes in *Capital III*, “so [unproductive] capital derives profit from not paying in full to productive capital for all the unpaid labour contained in the commodities.”¹⁵⁷ Although SNUL yields no surplus-value, the unpaid portion of its wage allows for its capital to secure a share of the social capital's total mass of surplus-value carried out through sphere to sphere transfers of value and the equalization of profit rates. In this sense, the exploitation of all workers is a fundamental characteristic of capitalism. And the exploitation of SNUL is a definite condition for the preservation and transfer of the surplus-value which is purchased for less than *its actual cost* from the productive sphere. Insofar as it is evident that SNUL's relationship to the commodity is of previously existing value (PEV), and as the notion of its 'systemic overhead cost' is evident in Marx's discussions of unproductive labour and commercial activity, the Mage-Smith perspective provides adequate independent rationale for how we should conceptualize these expenses.

¹⁵⁷ Marx 1991, p. 407 [*emphasis mine*].

Figure 1. Productive Labour & Systemically Necessary Unproductive Labour in Relation to the Marxian Value Categories.

PRODUCTIVE LABOUR (PL)

PL & PL wage costs as value	Does PL produce Surplus value?	Does PL produce new value?	Does PL preserve previously existing value?	Does PL function as variable capital?	Are PL wages a component of social surplus-value?	Are PL wages a component of constant capital flow?
As variable capital	Yes	Yes	Yes	Yes	No	No

SYSTEMICALLY NECESSARY UNPRODUCTIVE LABOUR (SNUL)

SNUL & SNUL wage costs as value (alternative conceptions)	Does SNUL produce surplus-value?	Does SNUL produce new value?	Does SNUL preserve previously existing value?	Does SNUL function as variable capital?	Are SNUL wages a component of social surplus-value?	Are SNUL wages a component of the constant capital flow?
As variable capital (denies UP/P distinction)	Yes	Yes	Yes	Yes	No	No
As surplus-value (upholds UP/P distinction)	No	No	Perhaps. (Unclear)	No	Yes	No
As constant capital (upholds P/UP)	No	No	Yes	No	No	Yes

Source: Smith and Butovsky 2018, p. 282. [Modified—JW]

To be clear, instead of allocating unproductive labour as an arbitrary deduction from surplus-value, the Mage-Smith approach proposes that from the standpoint of the social capital as a whole the costs associated with SNUL constitute a relative reduction in the proportion of the commodity's value that is surplus-value – a *diminution of realizable surplus-value*, rather than an

absolute deduction from it.¹⁵⁸

To be sure, it is difficult to distinguish between the types of labour which represent the factors of the production and reproduction process of capitalism which play an indirect role in the production of surplus-value as the constant capital approach proclaims. For example, due to the particular nature of workers employed by ‘non-profit enterprises’, they cannot be reasonably allocated as a component of constant capital but, in turn, are indeed a deduction from the pool of surplus-value. So too would be personal and home services, like an at-home butler.

Paradoxically, as Smith attempts to diverge from the *analytical* approach to SNUL, he remains faithful to Shaikh’s canonical procedure in distinguishing between what labour is productive and what labour is unproductive from the standpoint of the social capital.¹⁵⁹ Pushing past Smith, perhaps a further re-specification of how Marxists distinguish the particulars between productive and unproductive labour is also necessary?

The Capitalist State, Taxation and the Spheres of the Social Capital

One aspect of SNUL are those employed as workers in the capitalist state. In *fetishistic error* again, many political economists are dedicated to a perspective that is fundamentally opposed to “earlier”, so-called ‘reductionist’ theories of the capitalist state. Theories like Lenin’s ‘instrumentalist perspective’ which views the “state-machine” as a class weapon hell-bent on driving the working class into submission is generally rejected by contemporary scholars as their theories are often hell-bent on reforming the existing state, viewing it as a “neutral arbiter of class struggle.”¹⁶⁰

Treating the costs of general taxation as a deduction from surplus-value is indicative of a

¹⁵⁸ Smith 2018, p. 271.

¹⁵⁹ Smith and Butovsky 2018, p. 346. The authors follow the procedure found in Shaikh and Tonak’s 1994 book, which was first defined by Shaikh nearly two decades before. Also, see Shaikh 2016.

¹⁶⁰ Lenin 1970.

reformist approach. This is because workers obviously do not subsist on their before-tax income but on their after-tax income, meaning that if variable capital is based on the average cost of a worker's consumption requirements then variable capital must be calculated after-tax. Because taxes are financed by wages, and wages are paid to workers by capital, taxation is therefore first a tax on the social capital. For those who own the means of production, they then own the means of new and surplus-value production and must bear the general costs of the system's maintenance, of the capitalist state, taxation, circulation, and all those things necessary for reproduction – this is the core of the Mage-Smith 'overhead cost' approach.

However, a few caveats are in order. None of this is supposed to imply that a portion of the new value produced in the productive sphere which goes to the state is never surplus-value. When in fact it is often channeled to the state (i.e. due to a "generous" donation on behalf of capital) for various reasons. In periods of prosperity, the state is permitted to expand and can receive a portion of redistributed surplus-value from the productive sphere. But at the same time, the state can also contract in periods of despair which would release a portion of surplus-value back into the economy.¹⁶¹ What is more, SNUL can also temporarily enhance the rate of 'surplus-value realization' through a 'general speed up' of circulation/realization, albeit this is a rare feat for capital.¹⁶²

Nevertheless, there are three key benefits to a constant capital 'overhead cost' approach to the capitalist state, and for that matter, SNUL in general. First, compared to the alternatives, it provides an actual way to conceptualize the capitalist state in value terms through a radical framework. This demystifies the democratic *façade* of the 'repressive state apparatus' by treating

¹⁶¹ Smith 1984.

¹⁶² Smith and Butovsky 2018.

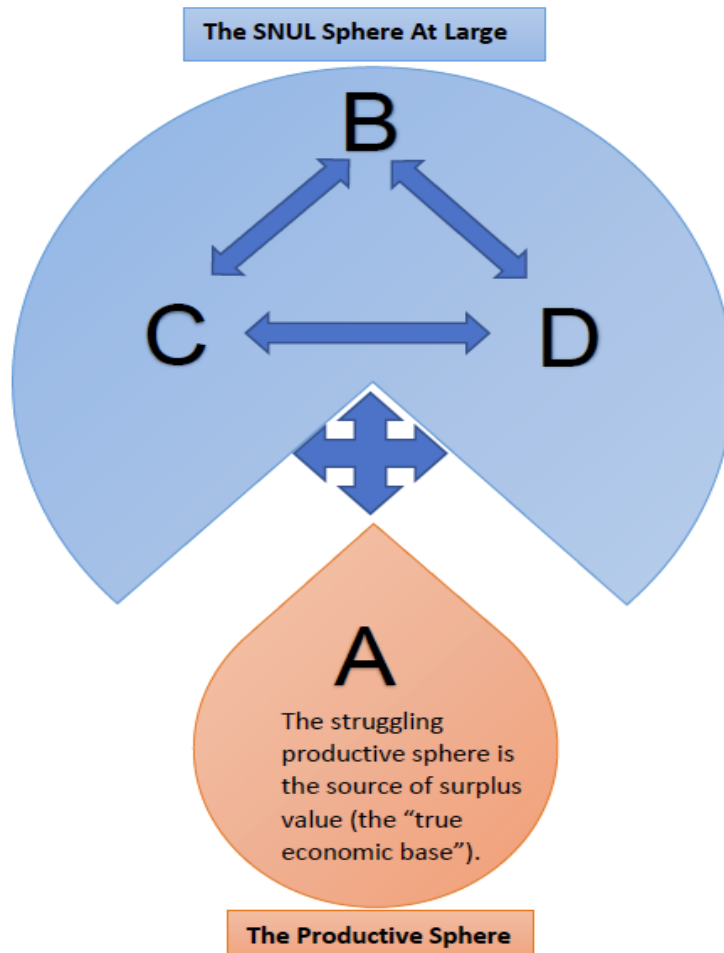
its costs as assumed by the social capital.¹⁶³ Second, it provides an adequate independent rationale for its allocation within Marxist theory. And third, it provides a means to empirically measure the impact that the SNUL wage-bill has on the ARP.¹⁶⁴ The larger picture here is that this perspective actually establishes that the objective contradictions inherent to the system have not only intensified but have spread to the unproductive spheres as well. As each of these spheres of the social capital grow and become more independent – the productive sphere, the circulation/sales sphere, the financial sphere and the state sphere – all engage in constant competition with one another over a shrinking mass of surplus-value (relative to capital invested) in the effort to stand against the malicious pressures of a so-called “free” market. As a result, the more autonomy that each of these spheres achieve the greater the impact they inflict on valorization, hindering profitability and reproduction.¹⁶⁵

¹⁶³ The old adage goes, “who ever pays the piper calls the tune.”

¹⁶⁴ This approach is based on Smith 1984, 1993, and 2010: referred to as the ‘value composition of output’ (VCO): the comparison of each of the aggregate *flows* of value as a percentage of nominal GDP (or, rather, MGO).

¹⁶⁵ Smith and Butovsky 2018.

Figure 2. The Spheres of the Social Capital.



Source: Author.

The dialectical relation between the production and realization of surplus-value, a competitive market, state activity and social reproduction are indeed mutually reliant spheres of the social capital but also appear as deeply contradictory elements of social value production. In regard to the SNUL sphere, circulation (B) is centered atop because of its primacy in the general requirements of reproduction, while the adjacent financial (C) and state spheres (D) are located below. Underneath is the struggling productive sphere (A), the “true economic base,” depicted by a shirking tear drop as it not only struggles to keep the rest of the economy afloat, but also

struggles to retain an acceptable rate of return of its own. As Smith puts it, such a contradictory social capital truly gives “Marx’s proposition that ‘the true barrier to capitalist production is capital itself’ a somewhat new twist.”¹⁶⁶

In conclusion, it is important to note that none of the other perspectives mentioned here effectively capture the arguments purported by the Mage-Smith approach and thereby provides no independent rationale for their treatment of unproductive expenses in Marx’s theory. In chapter four I attempt to operationalize the Mage-Smith constant capital approach to SNUL in the examination of the US economy.¹⁶⁷

¹⁶⁶ Smith 2018, p. 280.

¹⁶⁷ For the Canadian economy, see Smith 1984 – cited in Smith 1991 and 1993.

Chapter 3: A Methodological and Empirical Survey

The problem that Marx set himself in *Capital* was to “lay bare the economic law of motion of modern society.” But why this task? Because he knew only too well that *in order to change the world it is necessary to first understand it.*

– Anwar Shaikh (1978)¹⁶⁸

The ‘taint of empiricism’ interferes with any research conducted with the empirical method.

Economic analysis using input-output tables (IOT), the National Income and Product Accounts (NIA) and so on and so forth are no exception.¹⁶⁹ To be sure, the NIA figures are not *exact* representations of real world processes, but *exact* representations are impossible to ascertain.

With a few modifications, however, the NIA figures can be used by political economists of all perspectives to assess economic activity and social processes in the US and other economies.¹⁷⁰

There are serious limitations to empirical research but empirical research in the Marxian tradition is struck by additional limitations because such raw data holds opposing preconceptions which therefore distort results.¹⁷¹ The point for Marxists is then to ‘capture’ as accurately as possible the flows and stocks of value in price form by transforming the NIA’s “bourgeois”

¹⁶⁸ Anwar Shaikh 1978, p. 116 [emphasis in original].

¹⁶⁹ See Schumpeter 1962.

¹⁷⁰ All macroeconomics are broad estimations. The great majority of tradition empirical work in economics, however, has been replaced by modern-day experimental computer programs. Economists compute a matrix of an economy and calibrate it to resemble the real economy. They add and remove variables and change parameters in order to make the research question fit the model. For the supposedly critical and heterodox post-Keynesians, they apparently reject the conceptual “straitjacket” inherent to any and all equilibrium models of analysis and replace it with their so-called “dynamic” models. Despite what they claim, it remains static and presumptuous. For example, the benchmark New Keynesian Model of computation is based on the same age-old assumptions that Marx would have considered ‘vulgar economics’ because it is derived from micro-economic foundations for macro purposes, its calculations for aggregate demand assume that ‘consumers’ are infinitely lived and foresighted, and it assumes that interest rates are always knowable. For more, see Blanchard 2018, p. 45.

¹⁷¹ Freeman 1991. There also exists problems revolving around companies lying about their finances, as well as tax-evasion, governmental lobbying to influence regulations, hiding assets, etc. But to a degree the “books” must be balanced at the end of the year. Moreover, the nature of the 1920-1945 period, due to the Great Depression and war, greatly complicates economic analysis as it set the stage for a qualitatively different stage of capitalism in the late 1940s. The pre-1950 data sets are seen to be less reliable and should be treated with caution because, as Freeman writes, a) prior to the second world war, data on state expenditure is limited; b) and it was not until the 1950s when capital stock and depreciation figures were systematically evaluated on a regular basis.

national accounting system into a Marxian national accounting system to improve its aggregation and therefore its explanatory power. Elections have been won and lost on NIA figures; and corporate enterprises, investors, and researchers of all kinds draw on them for their own purposes, so as long as this is the case these figures will continue to remain relevant.¹⁷²

There is also considerable evidence that Marx himself valued empirical inquiry.¹⁷³ Marx's social-scientific method of beginning with an abstract model and moving to the concrete to develop essential laws and (testable) forecasts encourages empirical analyses.¹⁷⁴ For many, however, the concept of 'value' is simply too abstract and therefore is by nature unquantifiable. For others, 'value' is measurable but the NIA are unusable because they are formulated in 'prices' which constantly deviate from 'values', price being a product of market forces rather than social relations of production. But, since prices are a direct result of values, it becomes possible to work in reverse from prices to values – conceptualizing price as merely one form of value, the result of one commodity measured in terms of all other commodities at the level of exchange.¹⁷⁵

Hence, although there exists a quantitative deviation between prices and values, such does not fully obscure the fundamental relationship between the two.¹⁷⁶ It would be preposterous to circumvent empirical inquiry simply because the NIA are formulated in prices rather than in values or because of whatever limitation concerning empirical research. It is crucial to move

¹⁷² Ibid.

¹⁷³ Marx never said *not to* interpret the world. If theory cannot be measured or tested in anyway then it remains ideology. Refer to Appendix B.c for an example of Marx's personal empirical work.

¹⁷⁴ Hudelson 1982, p. 252.

¹⁷⁵ Shaikh 1978.

¹⁷⁶ Shaikh 1981, p. 292. The systematic deviation of prices from values is a dialectical phenomenon, whereas the "price" of money as a commodity also deviates from its intrinsic value. Meaning that such deviation is explainable by, and certainly not alien to, Marxian economics.

beyond ‘theory’, and to draw and compare informed conclusions in order to better interpret the world.

The present chapter surveys the work of several contemporary Marxists whose empirical inquiry falls under the broad canopy of Marxian “rate of profit studies.” Particular attention is given to the specific methodological procedures used by these Marxists; while the value-theoretical status of unproductive labour, the measurement of ‘actual’ surplus-value production as opposed to fictitious “profits,” the debate between historical costs versus current costs of production, and the causes behind capitalist crisis, are all key themes throughout the present chapter. Similar to the previous chapter, the open inquiry found in this chapter informs my own methodological approach to operationalizing Marx’s concepts as empirical variables.

Anwar Shaikh versus Murray Smith

The heterodox economist from the New School, Anwar Shaikh, describes capitalism as a system of accumulation where the general requirements of social reproduction are carried out through the anarchy of private production for the purposes of profit. When the economy is in a healthy state (when profitability is high), it is able to recover from setbacks, but when unhealthy (when profitability is low) it becomes prone to crisis. Shaikh’s main concern are the economic setbacks and crises which are products of capitalism’s *inner laws of motion*. In the earlier years of his scholarship, he was concerned with a falling average rate of profit (ARP) accompanied by a rising organic composition of capital (OCC).¹⁷⁷

Comparable to the scholarship of the young Shaikh, the Marxist-fundamentalist Murray Smith argues that the root cause of the current global economic malaise is found in an intensifying *crisis of valorization*: a systemic crisis located in the creation of satisfactory

¹⁷⁷ Shaikh 1978, p. 46.

volumes of ‘actual’ surplus-value relative to capital invested.¹⁷⁸ Unlike Shaikh, Smith has spent the majority of his life as a political and social activist within the socialist-movement and pays close attention to what is referred to as the ‘dialectic of the unity between program and theory’: that one’s conception of what needs to be achieved to address the problems of our time inescapably informs the questions one asks and the conclusions that one will ultimately reach through critical inquiry.¹⁷⁹ This is something merely glanced at by other political economists, but it is something that overwhelmingly informs Smith’s inquiry.

Again, both Smith and Shaikh uphold the productive-unproductive labour (P/UP) distinction, but nevertheless they diverge in how exactly unproductive expenses are specified for purposes of empirical research. On the one hand, Shaikh rejects the Mage-Smith ‘constant capital overhead cost’ approach to ‘systemically necessary unproductive expenses’ (SNUL); and, naturally, Smith is adamant in his own rejection of Shaikh’s now canonical treatment of SNUL as an ‘absolute deduction’ and a ‘non-profit component’ of surplus-value. As Robert Eisner succinctly informs us, circulation and reproductive expenses are a “precondition for the net product rather than the net product itself”, something that “maintains the social fabric” of the capitalist social relation.¹⁸⁰ As covered in the previous chapter, SNUL resembles ‘intermediate inputs’ which are *systemically necessary* from the point of view of the production of surplus-value, of the social capital.

Despite their differences, Shaikh and Smith engage in the identical procedure of segmenting the national wage-share based on the P/UP distinction. Productive labour is drawn from the NIA categories of mining, construction, agriculture, transportation, public utilities,

¹⁷⁸ Smith 1991.

¹⁷⁹ Smith 2018, p. 195.

¹⁸⁰ Eisner, found in Shaikh and Tonak 1994, pp. 10-11. Shaikh and Tonak note that Mage 1963 conceptualizes such systemically necessary expenditures in a similar vein.

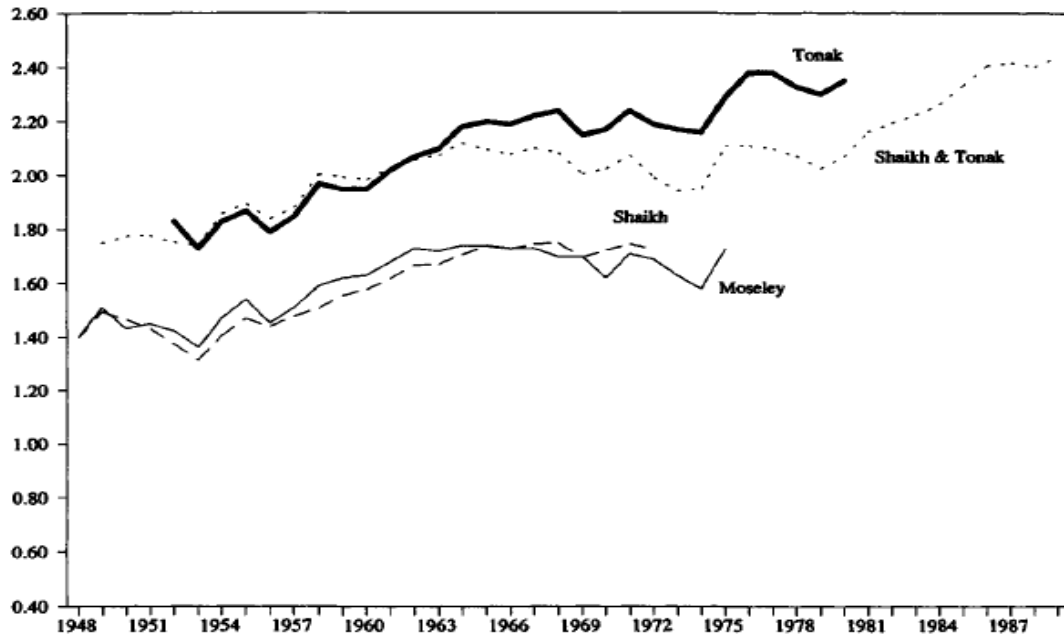
manufacturing and ‘productive services’ (that is, all services minus legal, business and private household services). SNUL is drawn from the categories that were omitted in the calculation of the productive labour force (that is, circulation, sales and government employees).¹⁸¹ Shaikh’s canonical position in regard to SNUL’s allocation persuades him to use before-tax estimates, while Smith uses after-tax estimates. Thus, Shaikh subtracts the SNUL wage-bill from his estimates for surplus-value while Smith does not; but unlike Shaikh, Smith goes one step further by including the accruals to the top one percent by income (the top 1%) in his estimate for surplus-value. Consequently, this greatly inflates Smith’s estimates, especially over the course of the neoliberal period as income polarization increased since the 1980s, widening the gap between rich and poor.

There are various ways to operationalize Marx’s variables. In their 1994 book, Shaikh and Tonak attempt to measure US profitability using a different method than Smith. Shaikh and Tonak calculate the Marxian variables in units of labour-time rather than money-units: surplus-value is equal to the *new value added* by workers less *workers’ consumption requirements*.¹⁸² Hence, the work-day is divided into two parts a) necessary-labour-time and b) surplus-labour-time, profits being a product of the latter. Necessary-labour-time over surplus-labour-time is the rate of exploitation (RE); or for productive workers, the rate of surplus-value (RSV).

¹⁸¹ Shaikh and Tonak 1994, p. 295. Smith and Butovsky 2018, p. 359.

¹⁸² Shaikh and Tonak 1994.

Figure 3. Rate of Surplus-value, US Economy 1948-1989. (Shaikh and Tonak 1994; Shaikh 1981; Moseley 1985; Tonak 1984).



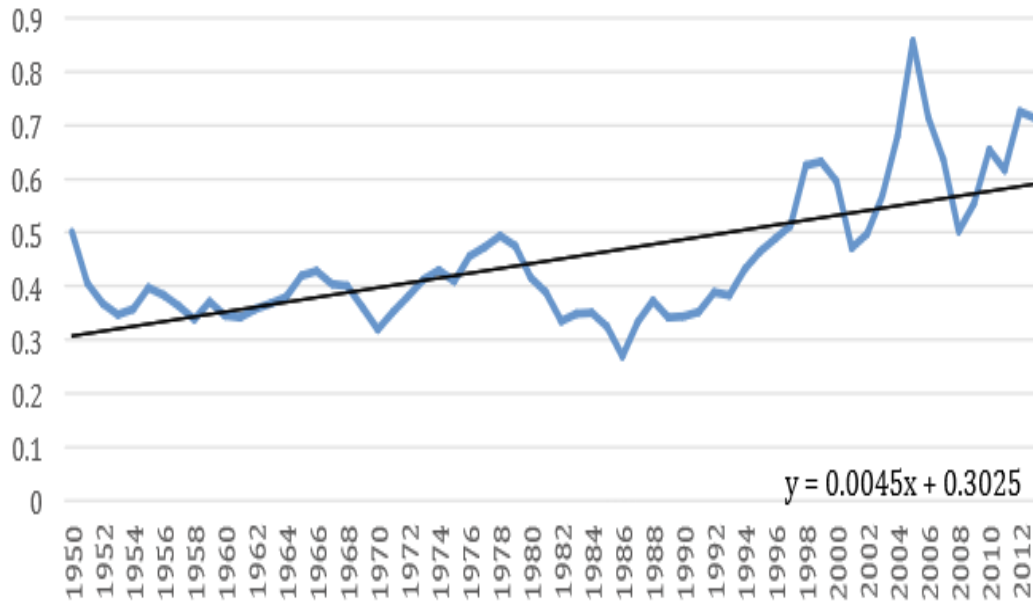
Source: Shaikh and Tonak 1994, p. 187.

In Figure 3, all maintain the canonical position that SNUL should be treated as both an ‘absolute deduction’ and a ‘non-profit’ component of surplus-value (s). As previously stated, Shaikh and Tonak engage in the simplistic procedure of subtracting the SNUL wage-bill from the pool of already produced surplus-value which, in turn, obscures the actual magnitude of surplus-value produced in a given year.¹⁸³ Shaikh and Tonak’s procedure places them between Tonak’s earlier independent study and Shaikh’s earlier independent study, and far above that of Moseley’s earlier study. Tonak uses a broad measurement for s similar to Roberts’ (see later in this chapter) as he subtracts the *national wage-bill* from *total new value added*. As a result, according to Shaikh and Tonak, Tonak’s earlier method overestimates s while Moseley’s

¹⁸³ This actually leads to a modified, before tax RSV’: if SNUL’s wage-bill = u then $RSV' = s - u/v$. Such issues with the allocation of unproductive expenses were taken up in the previous chapter.

underestimates it.¹⁸⁴

Figure 4. Rate of Surplus-value, US Economy 1950-2013.



Source: Smith and Butovsky 2016, p. 352.

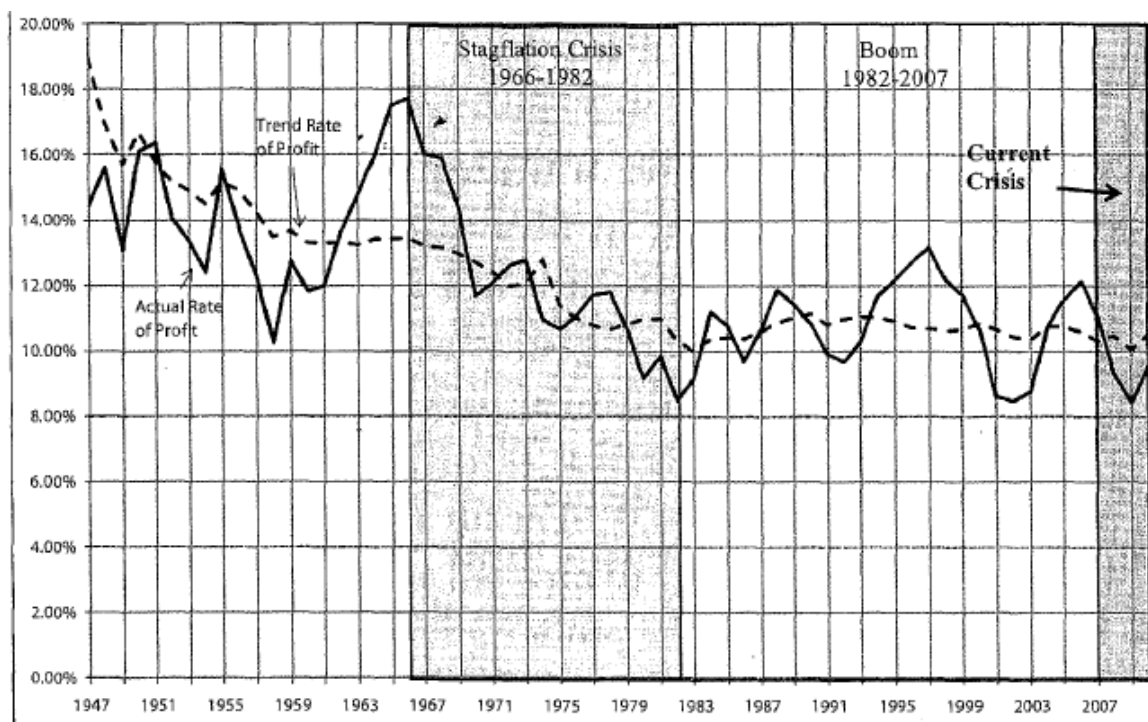
Smith's and Butovsky calculates the RSV as a ratio of *s* (after-tax domestic corporate profits plus the elites' wage-bill) over *v* (after-tax wage-bill of productive labour). Moreover, Smith and Butovsky urge their readership to understand that the jumps in their RSV in the late 1980s as well as the peak in the early to mid-2000s are essentially 'anomalous' due to a proliferation of financial "profits" which distorts their findings.

And as financial "profits" obscure the *actual* amount of surplus-value produced per annum, Shaikh calculates a 'non-financial corporate ARP' in a 2010 publication which evinces

¹⁸⁴ See Shaikh and Tonak 1994, pp. 185-88. It is stated that Moseley's imputations concerning 'value added' are roughly 20 percent lower than Shaikh and Tonak's.

– albeit, with many fluctuations – a clear secular decline between 1947-2010. By abstracting from the financial sector altogether (that is, the finance, insurance and real estate sectors), his calculations remove aspects of currently produced surplus-value that have become associated with fictitious capital. Shaikh believes the ‘non-financial ARP’ is the strongest indicator of capital accumulation.¹⁸⁵

Figure 5. ‘Non-FIRE’ Average Rate of Profit, US Economy 1947-2009.



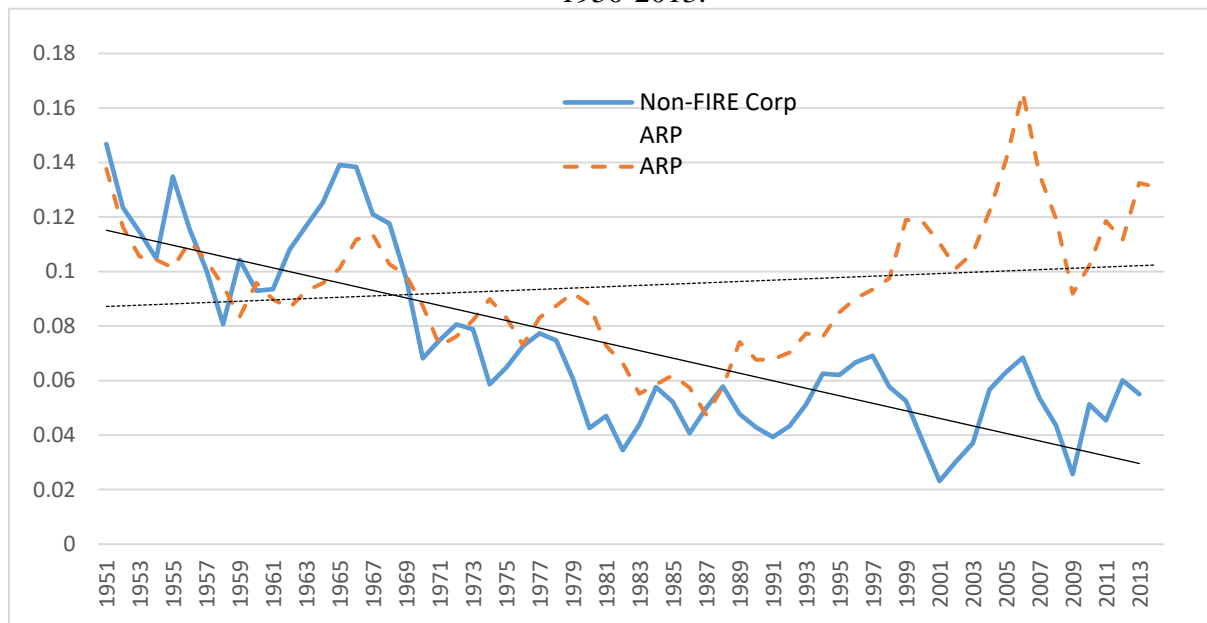
Source: Shaikh 2010, p. 48.

In Figure 5, Shaikh calculates the US ‘non-FIRE corporate ARP’: the ratio of *before-tax non-FIRE corporate profits* over the *current cost of ‘fixed corporate assets’*.¹⁸⁶ As a result, it declines almost 50 percent from 15 percent in 1947 to eight and a half percent in 1982, then increasing to 13 percent in 1997 before dropping again in the early 2000s.

¹⁸⁵ Shaikh 2010, p. 46.

¹⁸⁶ See (the appendix to) Shaikh 2010, p. 58.

Figure 6. Average Rate of Profit & Non-FIRE Average Rate of Profit, US Economy 1950-2013.



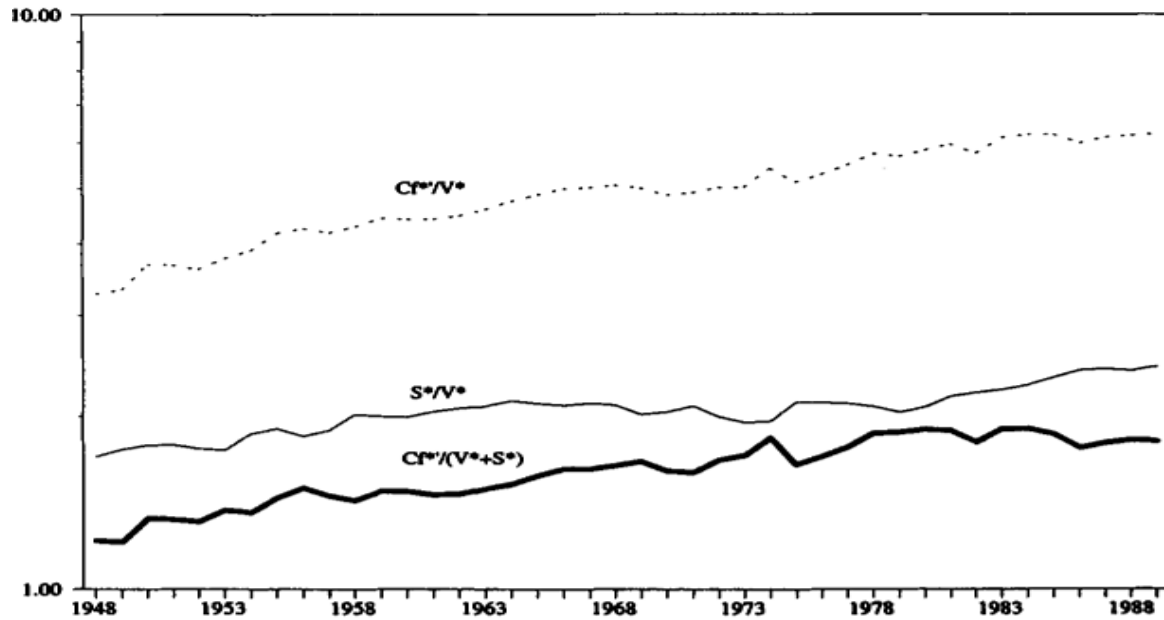
Source: Smith and Butovsky 2016, pp. 349-50.

Here are Smith and Butovsky's ARP and non-FIRE ARP estimates. These are formulated as the ratio of *after-tax corporate profits* plus the *income of the top 1%* over the *current cost of corporate fixed assets*. Smith and Butovsky's estimates show a slight upward trend in the ARP, and a major decline in the non-FIRE ARP over the period of study. Their non-FIRE ARP declines over 50 percent from just north of 14 percent in 1950 to three and a half percent in 1982, rebounding to seven percent in 1997 (investment boom) and not surpassing that peak again.

The upward trend in Smith and Butovsky's ARP is most-likely a result of their procedure of adding elites' income to the numerator of the ARP in the attempt to more accurately gauge the production of 'actual' surplus-value. In turn, this method served to inflate the revenue portion of their surplus-value estimate, which is especially clear since the 1980s. Yet, their 'non-FIRE ARP' declines significantly more than Shaikh's; and this is most likely due to Shaikh adding

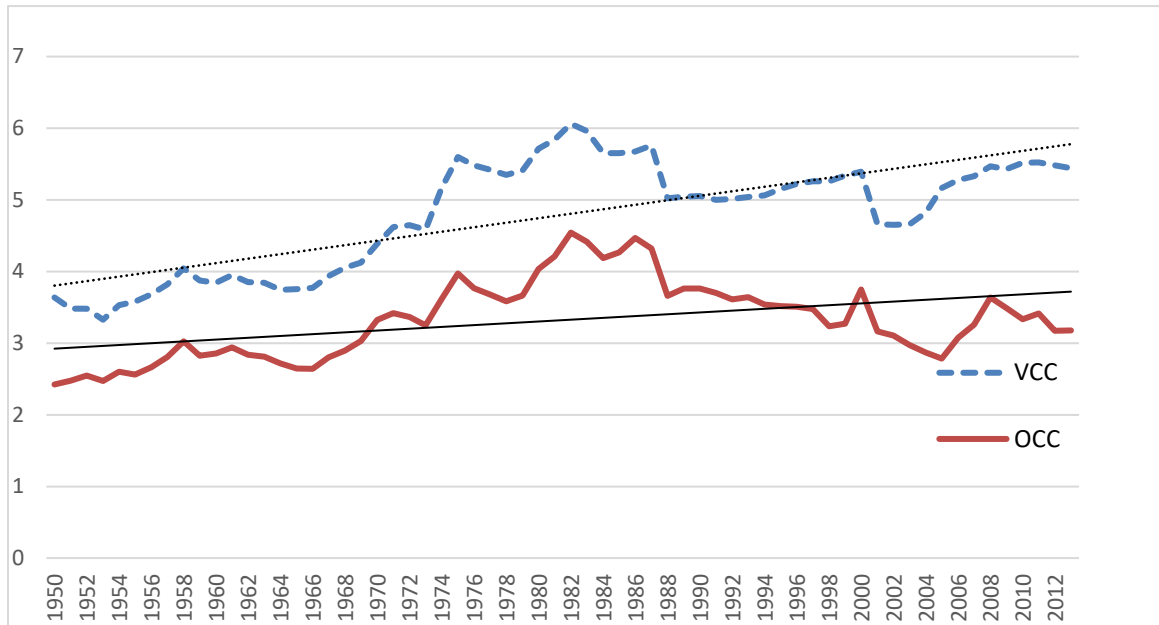
corporate interest back while Smith and Butovsky abstain.

Figure 7. Organic Composition of Capital (Bottom Line) in 1982 'Constant Dollars', US Economy 1948-1989.



Source: Shaikh and Tonak 1994, p. 128

Figure 8. Value Composition of Capital & Organic Composition of Capital, US Economy 1950-2013.



Source: Smith and Butovsky 2016, p. 353

Here, the OCC is defined as the ratio of dead-labour to new value produced, or dead- to living-labour ($C/s+v$).¹⁸⁷ Both Smith and Butovsky's as well as Shaikh and Tonak's compositions rise over the courses of study and depict an inverse relationship with their corresponding ARP measures. While Shaikh and Tonak's study is conducted in units of labour-time and Smith and Butovsky's in money-units, the general trend in their results are similar, however. Furthermore, although the former conceptualizes unproductive expenses in a different vein than the latter (including using either before-tax or after-tax measures), it appears to make little empirical difference. However, this directly affects the OCC and the VCC. So while it makes little difference in the results of the ARP, it is much more impactful concerning any formula which includes v .

¹⁸⁷ Shaikh and Tonak refer to 'fixed constant capital stock' as C_f while Smith and Butovsky use C , and cf for 'constant capital flow'.

From Fred Moseley to Andrew Kliman

The preface to Fred Moseley's 1991 book, *The Falling Rate of Profit in the Post War United States Economy*, begins by outlining the main objective of his study: subjecting the most important conclusions of Marx to rigorous empirical test: mainly that the rate of profit of a capitalist economy will fall due to changes in the composition of capital (primarily, the OCC).¹⁸⁸ Moseley goes beyond Smith and Shaikh by attempting to empirically test Marx's theory of 'unproductive labour' in great detail. According to Marx, Moseley writes, both the VCC and the RSV will increase overtime as a result of technological advancements set in motion by market competition. Consequently, the VCC will increase faster than the RSV putting downward pressure on the ARP. But as technological change causes the total capital invested to increase faster in the means of production (increasing output, growth, etc.) than in the means of circulation (increasing the rate of realization) there will also be a relative increase in the unproductive labour force to match the volumes of output, which puts downward pressure on the ARP.¹⁸⁹ Moseley stipulates that constant capital and variable capital are restricted to the capital invested in production activities.¹⁹⁰ By "production" Mosley means an expanded definition of 'production labour' which includes transportation and storage facilities but excludes circulation and supervisory labour. In sum, all this indicates Moseley's ostensible fidelity to the Marxist-fundamentalist position.

Moseley reduces constant capital to include only the physical means of production, whose value he says is *transferred* to the commodity via the production process. According to Moseley, Marx insisted that the costs of unproductive capital are to be recovered out of the pool

¹⁸⁸ Moseley 1991, p. xxi.

¹⁸⁹ Moseley 1991.

¹⁹⁰ Ibid., p. 34.

of already produced surplus-value. Moreover, Moseley argues that the distinction between constant capital and variable capital has little to do with unproductive expenses, whose value is neither new nor transferred to the finalized commodity-product.¹⁹¹ Because Moseley defines variable capital as the *money expended as capital to be exchanged for labour-power*, he says that this exact amount of money *must first* be recovered through the sale of commodities before being transformed into surplus-value.¹⁹² It is in this dualistic and false notion which misleads Moseley to favour a ‘before-tax productive capital ARP’, which also includes a portion of governmental taxation as a component of variable capital.

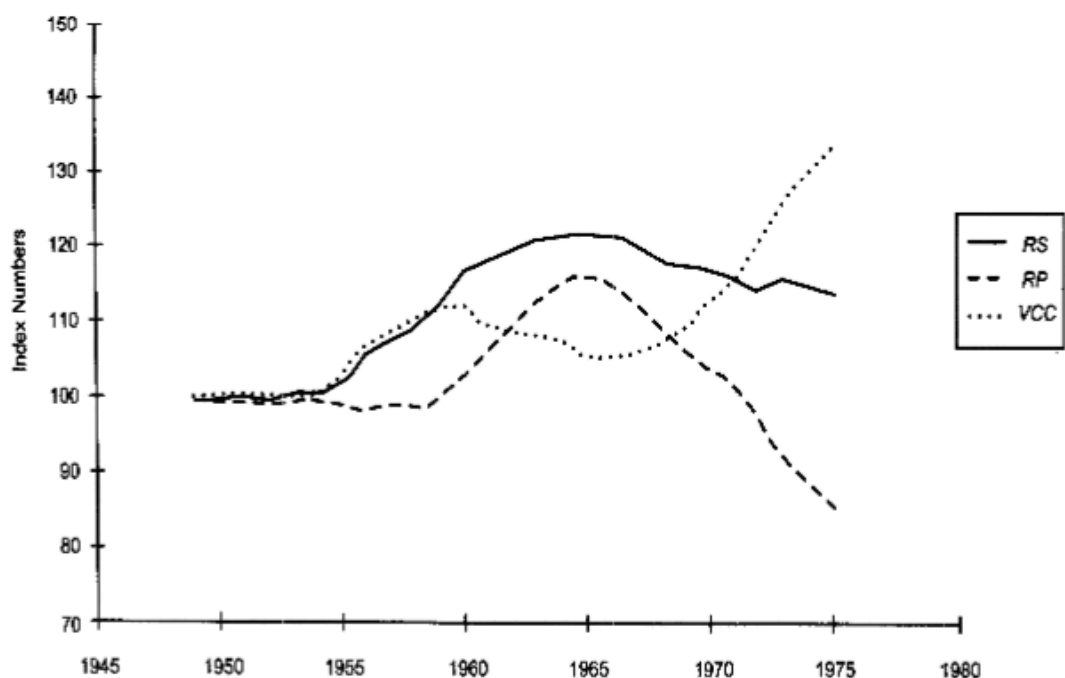
As Moseley deducts what he approximates to be the SNUL wage-bill from the numerator (*s*), he goes one step further by subtracting unproductive fixed and circulating assets from the denominator (*C*) of his profit rate as well.¹⁹³ In turn, this method obscures the ‘actual’ amount of surplus-value generated relative to capital invested in a given year and excludes the costs of unproductive capital – thus, it is *not* a measure of the social capital as Marx intended.

¹⁹¹ Moseley’s approach is *class centric* in the sense that he adopts the standpoint of the capitalist class themselves.

¹⁹² Moseley 1991, pp. 37-41.

¹⁹³ See Moseley 2000.

Figure 9. Rate of Surplus-value, Average Rate of Profit and Value Composition of Capital, US Economy 1945-1977.



Source Moseley 1991, p. 78.

Here, Moseley estimates surplus-value (s) by taking *new value added* in the productive sphere and subtracting *employee compensation* (a method similar to Michael Roberts), *employee compensation* being equal to variable capital (v). He uses the *current cost of private fixed assets of productive capital* and its *circulating constant capital* as the denominator. He defines the latter as something similar to the former, but instead subtracts the unproductive wage-bill from the numerator and excludes unproductive capital in the denominator of the profit rate. (If u stands for ‘unproductive’ and a assets, then Mosley’s “new” rate of profit calculation follows as $s-u/C-ua$.) After peaking in 1965, Mosley’s “RP” and “RS” decline until the end of his study.

To Moseley, Marx suggested that the laws of motion of capitalism will lead to expansive long-wave periods of prosperity which last until the ARP falls, culminating in depression or at

least ‘secular’ stagnation. Like many Marxists, Moseley writes that the ARP primarily recovers from economic crisis by the ‘devaluation of capital’ – the prerequisite to capitalist prosperity being prior depression.¹⁹⁴ Due to a falling rate of profit, Moseley argues that the US economy entered a qualitatively new stage of development in the mid-1970s. This change occurred because capitalism entered a new long-wave cycle, from a long-wave period of *expansion* to a long-wave period of *stagnation*. Moseley argues that the economy was in a similar state in 1947 as it was in 1977, for this reason he chooses to examine the US economy between these years. However, in a study conducted a decade later, Moseley extends his ARP estimate throughout the 1990s.

Figure 10. Average Rate of Profit, US Economy 1947-2001.



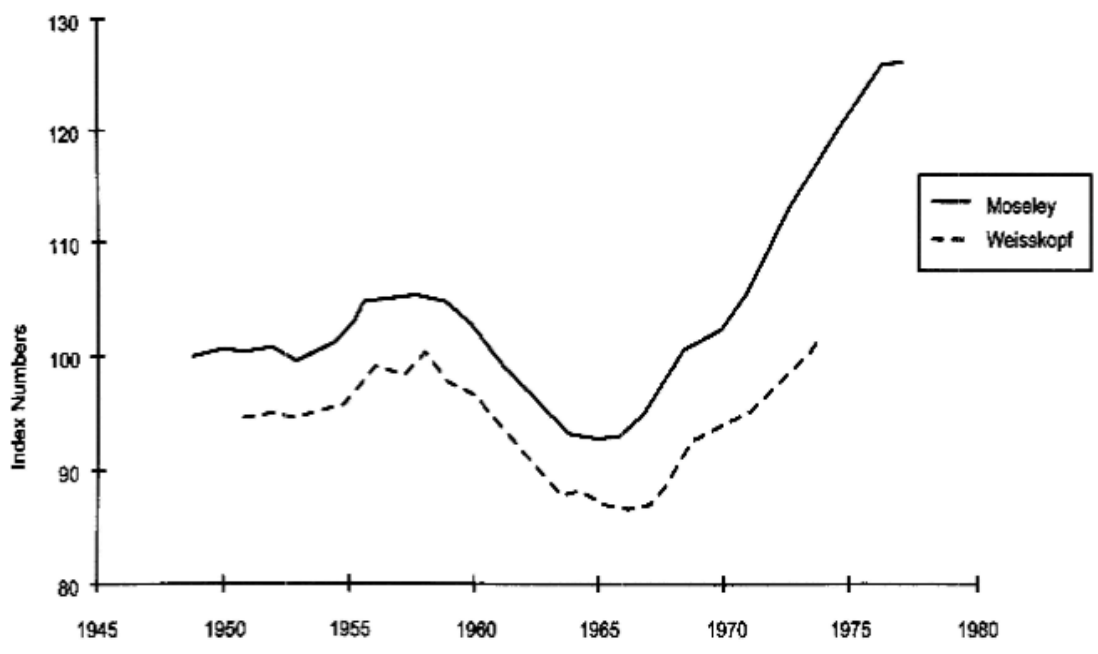
Source Moseley 2001, p.3.

Figure 10. is Moseley’s updated ARP measure. This measure includes the neoliberal period and therefore the recovery in profitability that began in the 1980s. This temporary wave of

¹⁹⁴ Moseley 2001, p. 12.

prosperity continued through the 1990s and led to the 1997 jump in profits (investment boom), paving the way for the 2000s Dot-com bubble and crash.

Figure 11. Organic Composition of Capital, US Economy 1947-1977.



Source Moseley 1991, p. 86.

Above, Moseley compares his OCC with the “wage-push/profit-squeeze” theorist, Thomas Weisskopf. Moseley defines the OCC as the ratio of the constant capital stock to the annual flow of new value, that is, the ratio of dead- to living-labour. Over the period of study, as Moseley’s ARP fell the OCC increased by 24 percent. His study also showed that the cost of fixed constant capital actually increased 36 percent while circulating constant capital – which he includes as a component of the rate of profit denominator – *declined 19 percent* over the same period.¹⁹⁵ In turn, Moseley suggests that the counteracting force of the cheapening of the means

¹⁹⁵ Moseley 1991, p. 65.

of production have devalued circulating constant capital more than its fixed counterpart. Moseley further suggests that the deflation of constant capital is a result of the extreme devaluation of stock which took place during the Great Depression, as well as earlier depressions and recessions. In turn, perhaps Marx's predictions of an increasing OCC met with a corresponding decline in the ARP would be clearer over the post-war period if capitalist crises were not so effective at devaluating the costs of capital.

What is more, Moseley also calculates the necessary-labour-time it takes for the average productive worker to produce the value equal to their wage and the surplus-labour-time which is appropriated by capitalists. Since 1947, surplus-labour-time has increased and necessary-labour-time has decreased substantially. Given an average eight-hour workday in the US, by 1977 the former reached almost five hours while the latter dropped to roughly three hours.¹⁹⁶

Furthermore, Moseley's findings indicate that the ratio of unproductive labour to productive labour has doubled over the post-war period. He writes that one explanation is that the majority of the productive work migrated overseas, generally to low-wage peripheral countries. However, he also argues that such changes in the economy only account for a small portion of the relative increase in unproductive labour, the causal mechanism behind such being increases in productivity.¹⁹⁷ Moseley also finds that since the second world war commercial labour has increased 134 percent while productive labour only 44 percent.¹⁹⁸

Supervisory labour has also increased over the post-war era. Moseley argues that the majority of the growth in supervisory labour can be attenuated to management's continuous attempt to maintain and improve their control over workers. Moseley proposes that the growth in

¹⁹⁶ Ibid., p. 52

¹⁹⁷ Ibid., p. 124.

¹⁹⁸ Ibid., p. 143.

supervisory labour has not effectively contributed to falling profits because supervisors actually fill a functional role by assisting in increasing the productivity and discipline of workers. And, according to Moseley, although supervisory labour has increased, it only composes of roughly a quarter of the total unproductive workforce.¹⁹⁹

Moseley draws the conclusion that the growth of unproductive labour appears to be an inherent tendency of the capitalist system as a result of two derivative laws of motion: 1) slower productivity growth in the sphere of exchange compared to the productive sphere, 2) the size of commercial capital must expand because of rapid increases in productivity (this is because an increasing magnitude of exchange-values must be continuously realized in price form). Thus, it appears as the productive powers of a capitalist economy advance, so does its upkeep requirements. Growth in the former leads to growth in the latter, which therefore serves to amplify falling profits over the long run.

In the end, Moseley's initial estimations for how great an impact that the growth of unproductive capital has on capitalist production was overzealous. Perhaps, the hypertrophy of such unproductive expenses was more noticeable during the immediate post-war period. Moseley concludes his study by stating that we can still assume that the negative contribution from unproductive labour on the ARP is marginally greater than the negative contribution from an increasing composition of capital. An intriguingly bold statement that I attempt to empirically substantiate in the following chapter.

Kliman

In his 2011 book, *The Failures of Capitalist Production*, Kliman sets out to show that "overproduction" is not the cause of capitalist crisis, but instead a symptom of the inner

¹⁹⁹ Ibid., pp. 142-145.

contradictions of capital accumulation and thus the result of a secular decline in the ARP.

“Overproduction” may *appear* to be the cause of crisis, but this phenomenon is simply the surface manifestation of deep structural antagonisms inherent to capitalist production. Kliman is also one of the founding proponents of the *temporal single system interpretation* (TSSI) of Marx’s value theory. The TSSI approach is *temporal* rather than *simultaneous* because Marx’s theory – and social reality itself – is dynamic.

The TSSI approach has wide-ranging implications. For example, Okishio’s theorem that the profit rate will tend to increase rather than to fall was based on a *simultaneous* system of equations. The algebra led him to unrealistically assume that increases in productivity would simultaneously reduce the costs of production. But this is not how it works in reality. Thus, inputs entering the production process *do not need* to match the prices of the ensuing outputs. What matters, as Kliman reassures us again and again, is not the current cost but the *original* cost of reproducing those assets, or a ‘historical cost’ valuation of constant capital.²⁰⁰ This method is followed by many Marxist economists, including Michael Roberts and Peter Jones.

Kliman’s ‘historical cost approach’ is predicated on calculating the ARP denominator as the *historical costs of private fixed assets* corresponding to the *previous year* – meaning, for example, that the year-end 1949 NIA figure is imputed in his data set for the 1950 year. However, Anwar Shaikh, who uses the ‘current cost’ approach, also calculates the ARP in the Marxian tradition by using figures for the *previous year* because, and as he and Tonak assert in their 1994 book, the NIA database inputs the capital advanced for the year *at the end of that same year*.²⁰¹ So this method of using the previous year is not unique to TSSI, only using the

²⁰⁰ Kliman 2007, p. 35.

²⁰¹ Shaikh 2010, p. 58. Indeed, as capital ‘advanced’, it is appropriate to use year end for the beginning of the next year.

NIA figures for ‘historical costs’ is. Yet, it appears that any difference in results is empirically inconsequential in the end, so the choice is really a matter of personal theoretical preference.

Now, thus far I have surveyed two different methods pertaining to the treatment of unproductive expenses within the Marxian framework: the canonical ‘absolute deduction’ approach (Shaikh and Moseley) and the Mage-Smith ‘constant capital/overhead cost’ approach. Kliman is the first of the lot to effectively reject the P/UP distinction by treating *all* wages as productive of surplus-value, and therefore as variable capital.²⁰² It is important to note that while Kliman rejects the P/UP distinction, his Marxian measurements refer to the social capital as a whole rather than just to productive capital.

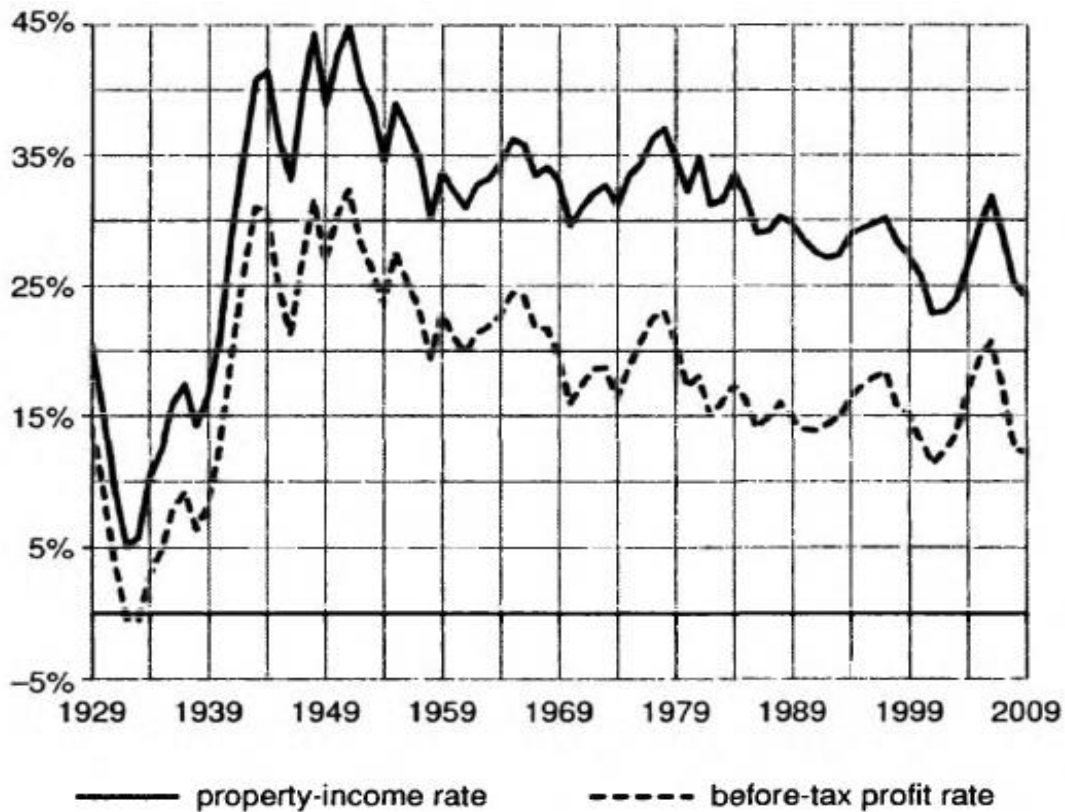
Kliman’s rejection of the P/UP distinction is a serious weakness in his work. But another weakness is the way that he measures workers’ wages. Sangjun Jeong asserts that Kliman overstates his estimates by counting the income of the top wage and salary earners as workers’ wages and also by double-counting.²⁰³ Jeong argues that the case made by the heterodox economists, Gerard Dumenil and Dominique Levy, shows that a measure that includes the *top five percent by income* – like Kliman’s – is not really an estimate of working-class wages because it includes the various beneficiaries of capital and some capitalists as well.²⁰⁴

²⁰² Kliman 2011, p. 101.

²⁰³ Kliman’s double-counting is a result of him adding back social and government benefits to the wage-share.

²⁰⁴ Jeong 2012, p. 5. In the next chapter, while undergoing a process that separates productive and unproductive labour, I only exclude the wages of the top 0.1%.

Figure 12. Average Rate of Profit & 'Property-Income' Rate of Profit, US Economy 1929-2009.



Source: Kliman 2011, p. 76.

Here, Kliman operationalizes two ARP measures using historical-costs for the capital stock: a 'property-income ARP' and a 'before-tax ARP'. What he refers to as "property income" is simply a calculation of *net value added* less *employee compensation* similar to Moseley and Roberts' broad measurement for surplus-value; while the 'before-tax ARP' is his before-tax calculation for *corporate net operating surplus*.²⁰⁵

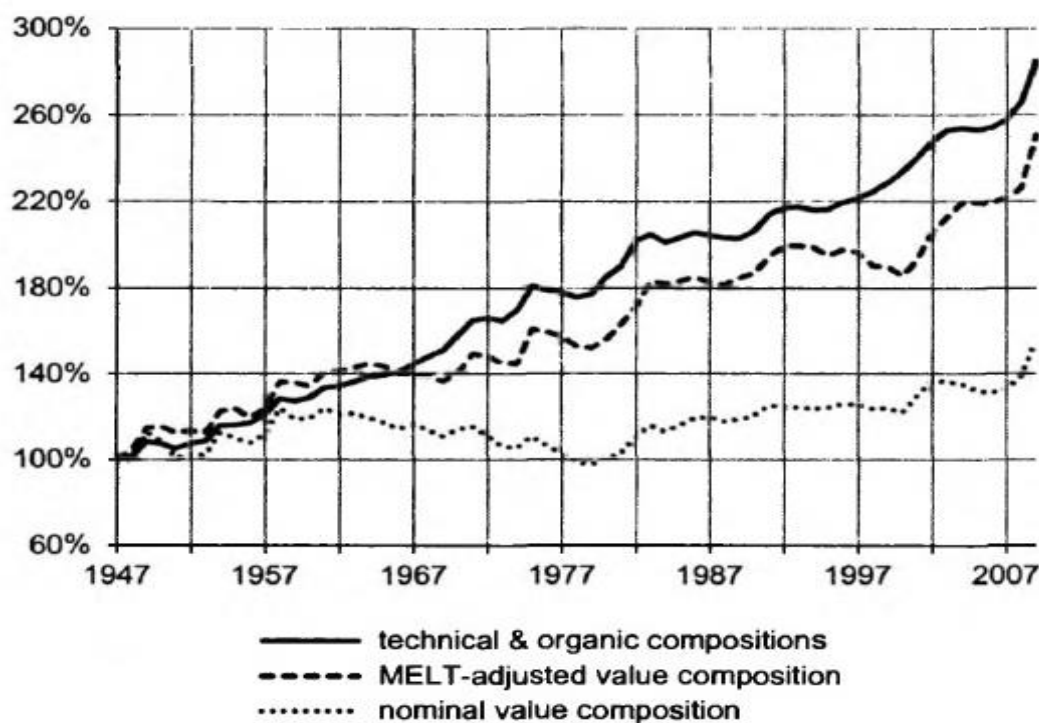
Kliman writes that both of his profit rates appear to follow the same trajectory; sharply rebounding after the Great Depression of the 1930s due to massive amounts of monetary

²⁰⁵ Kliman 2011, pp. 99-101. Net operating surplus is a corporate rate of profit measurement and can be attenuated to *before-tax corporate profits* over the corresponding *corporate fixed assets*, historical valuation.

stimulus and capital destruction. From the end of the second world war to 2009, his ARP declines with only minor recoveries throughout. Mirroring my own research, Kliman states that a great deal of empirical research in the Marxist tradition grossly overstates the sharp increase in the ARP throughout the 1990s and right before the Great Recession of 2008.²⁰⁶

Kliman is convinced that the aggregate wage-share *has not fallen* over the neoliberal period in the US. He asserts that the wage-share today is higher than it was a few decades ago, meaning that the problems of capitalism cannot be reduced to the problems of ‘effective demand’ or a lack of purchasing power (for example, “overproduction” cannot be the *cause* of the 2008 crisis). In turn, he believes that a great deal of empirical research in the Marxist tradition has mistaken falling wages for the acute financialization of the economy.²⁰⁷

Figure 13. Organic Composition of Capital, US Economy 1947-2007.



Source: Kliman 2011, p. 132.

²⁰⁶ Kliman 2011, p. 77-8.

²⁰⁷ Ibid., pp. 165-7, 89-91.

Figure 13 contains Kliman's compositions of capital, which have risen over the period of study, the average growth of all three is 1.7 percent annually.²⁰⁸ Kliman's empirical findings correspond with Marx's own forecasts and again confirms the core thesis of the Marxist-fundamentalist position of a falling ARP accompanied by a rising OCC. Kliman is insistent that the recovery in the ARP is not a result of falling wages but financialization; he also stresses that the lack of the destruction of capital which began around the early-1970s played a major roll as well.

As Kliman is most concerned with economic crises, much of his 2011 book is dedicated to the '07-08' global financial crisis that originated in the US economy's real estate sector. But being so concerned crisis, it is odd that Kliman prefers a 'property-income ARP' which includes an element of taxation (specifically, he includes a tax component in the numerator of his ARP measure). This is odd because taxation fluctuates much differently than profits either before, during or even following a crisis. As covered previously, taxation is an 'unproductive expenditure' and not a component of surplus-value, and as the NIA imputes figures for taxation that do not reflect newly produced surplus-value, it is not to be included in the numerator.

Guglielmo Carchedi and Michael Roberts: The Roots of Capitalist Crisis

In *The Long Roots of the Global Crisis*, Carchedi and Roberts set out to prove that movements in the rate of profit on productive capital best reveals the roots behind capitalism's tendency to fall into crisis. Similar to Moseley, they argue that because surplus-value originates in the productive sphere, special attention must be given to this profit rate.²⁰⁹

²⁰⁸ Ibid., pp. 132-3.

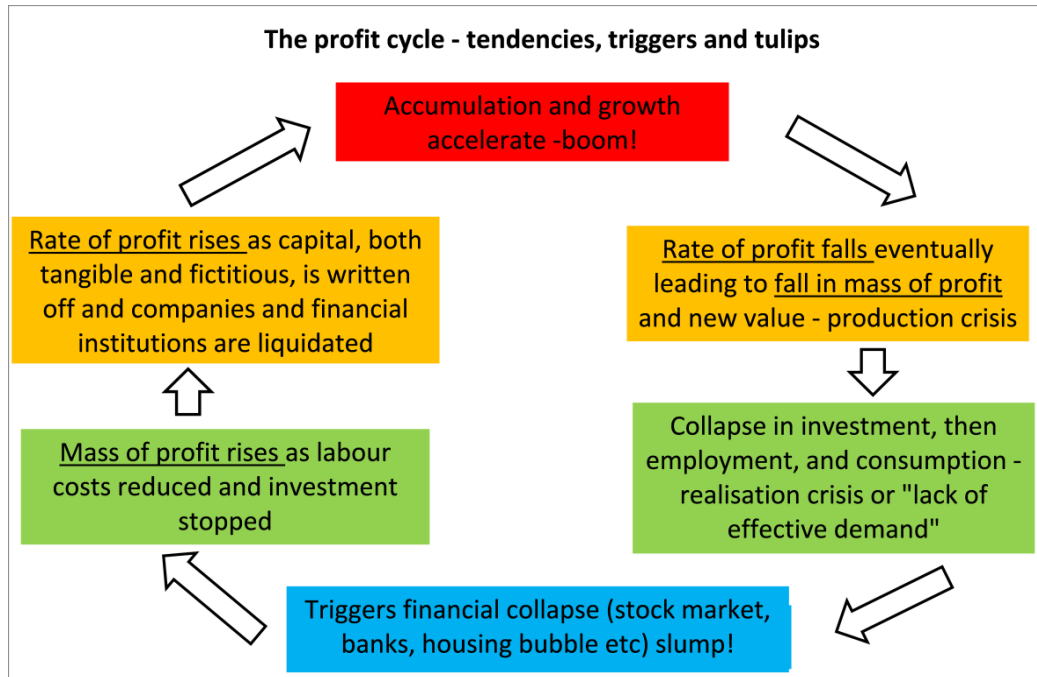
²⁰⁹ Carchedi and Roberts 2018.

As Marxist economists, Carchedi and Roberts are most concerned with the empirical validity of Marx's LTRPF as a theory of crisis, both explaining past capitalist crises and anticipating future ones. Like everyone surveyed in this chapter so far, they both uphold the fundamental postulate that the cause of capitalism's dynamism – technological change – is the main cause of its failures: that is, the value expression of a rising OCC is met with a corresponding fall in the ARP. Like Kliman, Carchedi and Roberts argue that what is known as a crisis of “overproduction” is actually rooted in technological change, a result of the increasing mass of use-values which contain less and less exchange value.

For Carchedi and Roberts, Marx's ‘law as such’ (as in, the ‘social weight’ of the LTRPF is always ‘felt’) prevails irrespective of the various countertendencies because it is cemented in the fundamental social relations of capitalist production and reproduction – and regulated by the ‘law of labour-value’. Overtime, as the ARP declines it eventually leads to the mass of profits contracting, which induces crisis.²¹⁰

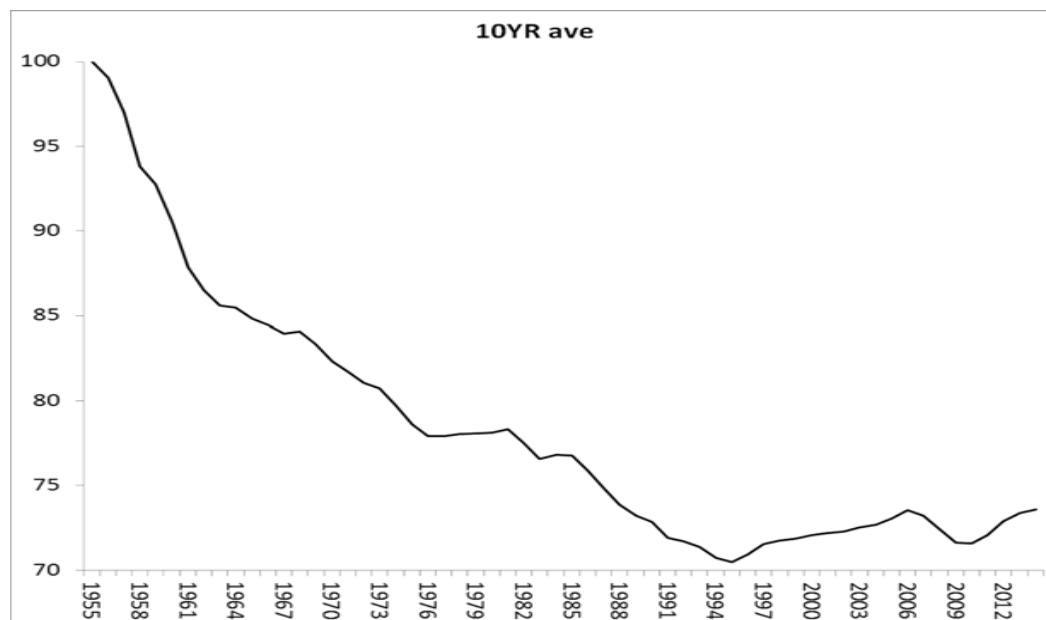
²¹⁰ Carchedi and Roberts 2018, p. 22; Carchedi 2017, p. 67-8.

Figure 14. The Profit Cycle.



Source: Roberts 2017, p. 4.

Figure 15. US Average Rate of Profit, 1955-2012.



Source: Carchedi and Roberts 2018, p. 21. (10yr rolling average)

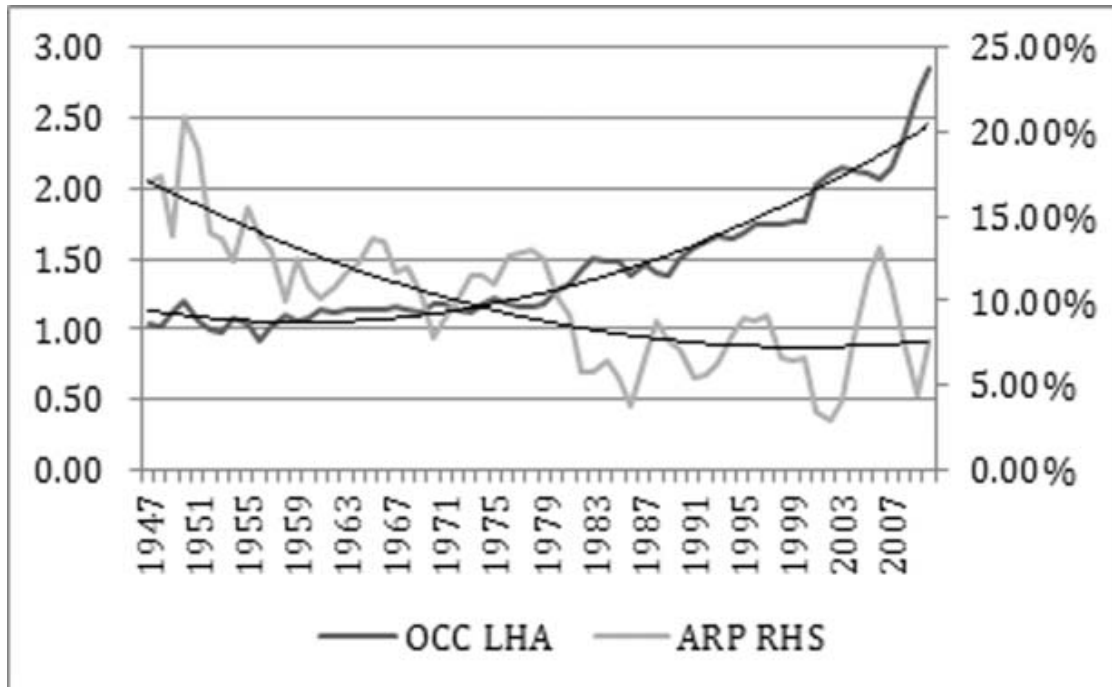
In Figure 15., like Moseley and Kliman, Roberts subtracts *employee compensation* from *net national income* for s , inflating his profits estimate. Like Kliman, both Carchedi and Roberts reject the productive-unproductive labour distinction, but they take it one step further by adding *employee compensation* (as v) to the denominator of the ARP.²¹¹

From the standpoint of the individual capitalist, variable capital – in the form of wages – is simply a cost of doing business and may be included in its profit rate; but from the standpoint of the social capital, v is returned to it when workers use their wage to purchase commodities. Variable capital is therefore not included in the social capital's ARP as its *cost* is “consumed” during reproduction. But nevertheless, Carchedi and Roberts decide its appropriate when looking at productive capital, and perhaps when analyzing specific junctures as it can tangentially enhance explanatory power.²¹²

²¹¹ See chapter 2 of this study on the concept of *fetishism*.

²¹² Including wages in the ARP can be a useful analytical tool, but it can also boost its downward tendency.

Figure 16. Average Rate of Profit & Organic Composition of Capital, US Economy 1947-2007.

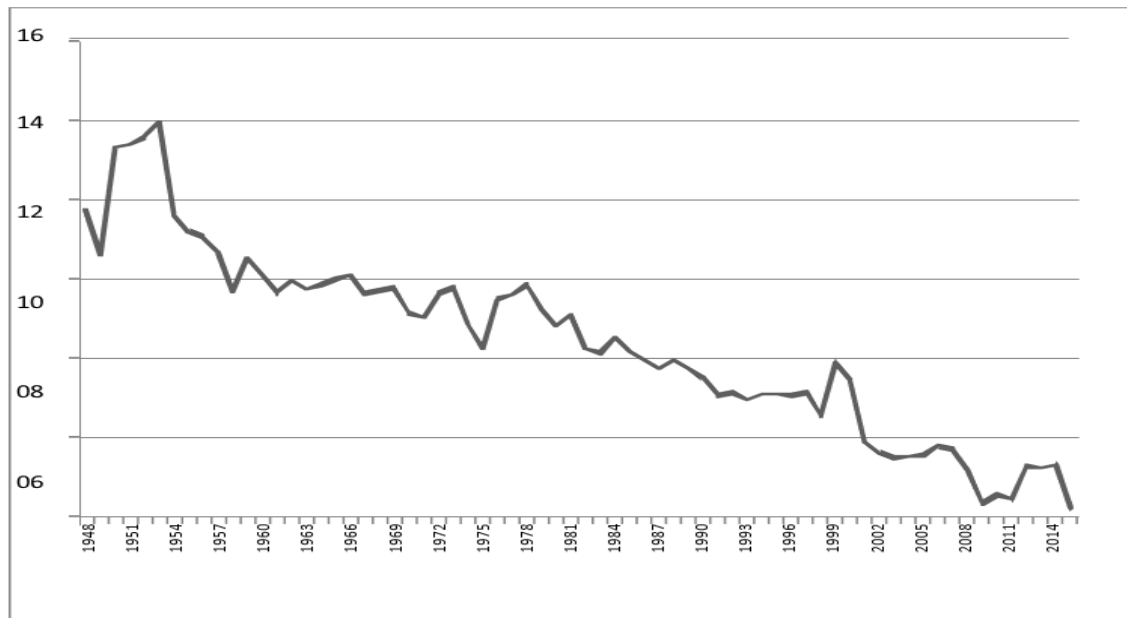


Source: Carchedi 2018, p.55.

Here, Carchedi calculates the ARP using a narrow measure of surplus-value while remaining attached to the historical cost approach for *private fixed assets* and adding variable capital into the denominator (i.e., $s/(C+v)$). This measurement appears as a much more accurate representation of US profitability than Figure 15.

In order to better detect the causes behind capitalist crises, Carchedi goes further in calculating a modified ARP measure that uses a constant rate of exploitation: a ‘constant-exploitation ARP’ (CE-ARP). This method effectively reduces the rate of surplus-value (RSV) to be constant with that of the 1950s, which in turn negates the countertendency of ‘increasing exploitation’ that came with neoliberalism in the 1980s. This modified ARP calculation evinces a stronger (albeit, a somewhat unrealistic and anomalous) downward tendency.

Figure 17. 'Constant Exploitation' (Normalized) Average Rate of Profit, US Economy 1948-2014.



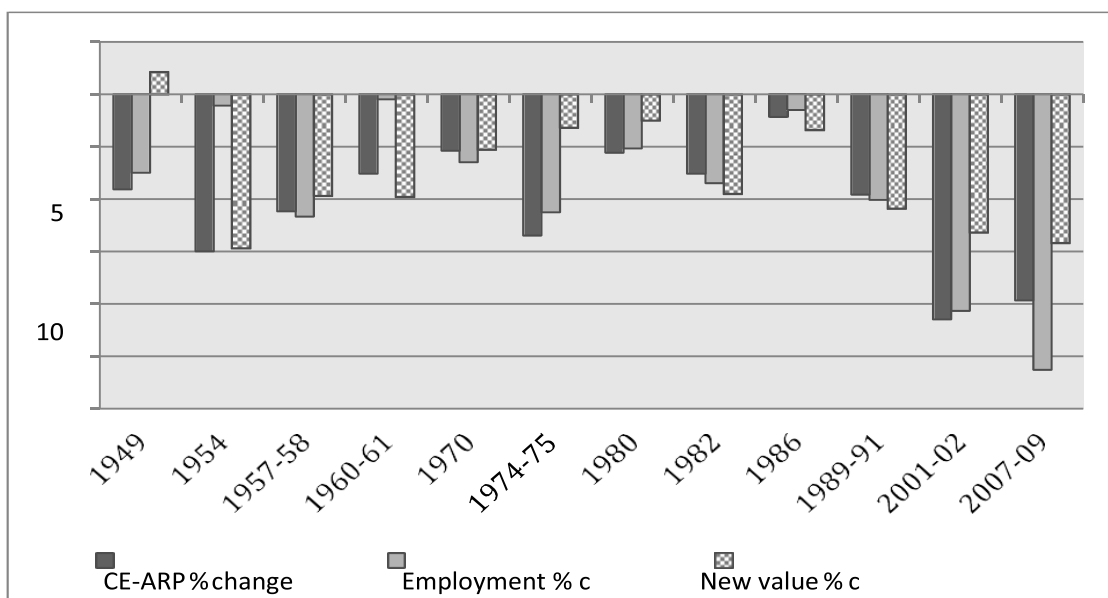
Source: Carchedi 2017b, p 3.

Carchedi believes that we must look to the factors which undermine any increase in aggregate profitability, and because a rising technological composition reduces surplus labour, we must look at what exactly exerts influence over the OCC – such as slow employment growth accompanied by a rise in growth in fixed productive assets. So, Carchedi thinks that investment/divestment in productive fixed and “non-fixed” assets are strong indicators of a crisis to come – which is agreeable. Moreover, this can be extrapolated to mean that fluctuations in the mass of constant capital and in the mass of variable capital (v), and potentially an increase in unproductive expenses, are all strong indicators of a potential crisis.

Carchedi’s proof here is that five out of the seven *financial crises* over the last 60 years coincided with crises that originated in the productive sphere of the economy; and as the profit rate on productive capital fell, investment in assets grew faster than employment in the majority

of cases.²¹³ Over the post-war period the share of workers' wages increased before 11 out of 12 crises, confirming Marx's statement that even though wages fall in the long-term, they rise right before crisis.²¹⁴ Moreover, Carchedi identifies three specific points of intersection present in all 12 crises since the second World War. He states that crises emerge when the rate of change in (a) the "CE-ARP" on productive capital, (b) employment and (c) new value *are all negative*.²¹⁵ However, both points (b) and (c) are rather superfluous in this sense because they are essentially captured by Carchedi's "CE-ARP" measure anyway.

Figure 18. Percentage Fall from Pre-Crisis to Last Crisis Years: 'normalized' ARP, Employment, New Value Added, US Economy 1949-2009.



Source: Carchedi 2017, p. 9.

Although Carchedi's use of the "CE-ARP" has demonstrated its analytical usefulness in learning about the causes behind crises, however, its purpose is ultimately rooted in the

²¹³ Carchedi 2017, p. 21.

²¹⁴ Carchedi 2017, p. 23.

²¹⁵ Ibid., p. 8; Carchedi 2018, p. 75.

examination of the *validity* of Marx's law of profitability itself, rather than real world processes despite what he argues.²¹⁶ Insofar as the ongoing exploitation of the working-class is a fundamental characteristic of capitalism (after all, it is the very *source* of profit), a "CE-ARP" is not a measure of the social capital's valorization process as a whole and not what Marx intended. Hence, by abstracting from fluctuations in the RSV one abstracts from viewing capitalism as a totality.

It should be noted that many of the difficulties with Marxian empirical work arise from the need to rely on official but inadequate national accounting systems. Even so, it remains well worth the effort, because Marx's conceptual framework remains far superior to the alternatives. In response to the "demand-side" (post-) Keynesians and the "critical" Austrian economists' on the issues of capitalism, Carchedi and Roberts argue that both these 'mainstream currents' proceed from the concept that production is for consumption rather than for profit, leading them to believe that consumption (exchange) fuels investment. The main variables for these currents are consumption and investment, not profits.²¹⁷ Indeed, the mainstream economic paradigms of the last 200 years completely lack an adequate understanding of profits at the macro-level.²¹⁸

Drawing on other research, Carchedi and Roberts determine it is quite clear that investment is fueled by profits, with profits originating through the collective exploitation of the working-class in production. After all, exchange cannot occur before the production of exchangeable-commodities, so the former cannot act as the mechanism behind crisis. Now in regard to the problems of capitalism, Carchedi and Roberts argue that the Austrians think that increasing debt will prolong economic malaise; meanwhile the Keynesians reject this and believe

²¹⁶ Then again, I am beginning to believe such 'CE-ARP' which includes v in its denominator, and that also includes unproductive assets while omitting a *portion* of the FIRE sector, would be the best indicator of crisis.

²¹⁷ Carchedi and Roberts 2018, p. 26.

²¹⁸ Obrinsky 1983, p.3.

that regulation and government stimulus will fix the underlying problems. For the Marxists, they add, the failures of capitalist production are rooted in falling profits relative to capital invested; capital needs to “self-destroy” in order to revitalize.²¹⁹

Carchedi and Roberts reckon that there are several conjunctural factors that will become *catalysts* in the next profitability crisis: such as commercial and trade wars (i.e., economic nationalism); the persistent growth of international debt and speculation in financial assets; military wars, especially in the Middle East and Africa; and the growth of nationalist, far right, fascist movements – with devastating austerity programs mixed in, of course.²²⁰ And as it seems, at least over the last few years, that much of their forecast is becoming reality.

Conclusions

While the combined work of Carchedi and Roberts is an impressive exposé of the current state of “advanced” capitalism in the US, I have various issues with their analysis. Carchedi and Roberts attempt to make visible the source of capitalism’s dysfunction: that the system’s social relations of production continuously generate unemployment, the destruction of value, poverty and war. In his 2016 book, *The Long Depression*, Roberts writes that over five years since the 07-08 crisis economic growth has yet to return to pre-crisis levels – meaning that we currently remain in the Long Depression today.²²¹ His diagnosis can be summarized as follows.

US profitability peaked in 1997, and again in 2005. This peak was a product of a multitude of factors but mainly due to the cheapening of the costs of production that happened over the 1990s due to the “high-tech/digital” revolution in the methods of commodity production, as well as globalization processes that pushed down wages in the ‘developed’ world.

²¹⁹ See Carchedi and Roberts 2018 collection: *The World in Crisis*.

²²⁰ Carchedi 2017, p. 22.

²²¹ See Roberts 2016.

After the 2005 peak in profitability, which was in fact lower than the peak in 1997, as suggested by Roberts, the countertendencies were exhausted. By the early- to mid-2000s, Marx's 'law as such' became dominant once again; and by 2006 the mass of profits began to fall.²²² Thus, the tenacious yet *indirect* effect of a declining ARP was present since 2000, and it fell for *three years preceding the crisis*. But the actual crisis wasn't triggered until late 2007.²²³ Ever since, profitability and economic growth have failed to reach their levels of before the crash.

The Great Recession of 2008 had deep roots. Consumers were offered increasing levels of debt peonage in order to accelerate consumer spending; by the 1980s, the ratio of household income to debt grew substantially and continued to grow throughout the 1990s and 2000s. By mid-2000, household debt hit its historic high before plummeting in early 2008.²²⁴ Low interest rates led to high consumer spending, which assisted profitability by maintaining 'effective demand' despite the decline in real wages.²²⁵ Yet, in the end, the surge in consumer spending increased the severity of the crisis, and the Great Recession of 2008 was the worst economic disaster since the Great Depression of the 1930s.

Roberts and Carchedi's assessment of the trends in the US economy is supported by the literature examined in this chapter and the findings found in the next chapter. Shaikh, Smith, Moseley and Kliman all observe a declining rate of profit prior to the 2008 crisis, indicating that the financial panic was rooted in the poor performance of productive capital (which began in the late-1960s and 1970s, well *before* neoliberalization).

Indeed, Shaikh's findings show that the US rate of profit drifts downward until the early 1980s, when it stabilizes. Similar to Moseley, he designates the period of 1966 to 1982 as the

²²² Roberts 2011; Carchedi and Roberts 2018.

²²³ Roberts 2016.

²²⁴ Carchedi and Roberts 2018, p. 22.

²²⁵ Smith 2010, pp. 22-4; Shaikh 2010, p.54.

‘stagflation crisis’ (a crisis of stagnate economic growth combined with rising inflation), and 1982-2007 as a long-wave period of growth. For the latter period, writes Shaikh, labour repression throughout Ronald Reagan’s presidency served the purpose of propelling profitability.²²⁶ While Smith, Shaikh and Moseley stress the negative impact of unproductive expenses on profitability, the others completely ignore it.

Additionally, in his 1991 book Moseley suggested that it is *unlikely* that the US profit rate will recover over the 1990s, and without a significant recovery stagnation will continue, eventually culminating in severe depression.²²⁷ While Mosley was incorrect about the 1990s, he was correct to forecast another severe crash like the 2008 collapse and the Long Depression. Nevertheless, in a 2001 paper Moseley withdrew his earlier comments about the 1990s performing worse, maintaining (unlike Kliman) what has become near consensus among Marxist-fundamentalists concerning the recovery in the 1990s. While Kliman is alone in his view that wages have not decreased over the neoliberal period, much of his analysis follows the others. For these Marxian political economists, the secret behind the credit boom of the 2000s – the boom which sent the ARP climbing to new heights – was a sharp decline in interest rates and a proliferation of financial forms of valorization.²²⁸

Nevertheless, there are also many theoretical and methodological problems that exist across the board. For instance, only Smith, Shaikh and Kliman attempt to operationalize an *economy-wide* ARP with a corresponding *economy-wide* OCC; that is to say, only these three adopt the proper analytical standpoint by conceptualizing capitalism as a totality, as Marx

²²⁶ Shaikh 2010, p. 22, 31.

²²⁷ Moseley 1991, p. 158.

²²⁸ Also, it should be noted that the overall reduction in ‘unproductive labour’ due to the shrinking of the public sphere via the neoliberalization of the 1980s and 1990s would have served to assist profitability.

intended. Moreover, as it is not possible to disaggregate the NIA figures into the Marxian categories of productive and unproductive capital with analytical precision, Carchedi and Roberts use *goods-producing industries* as a proxy for productive capital.²²⁹ Essentially, this yields a ‘physicalist’ profit rate, one that has definite uses but ultimately remains fetishized – and reminiscent of Adam Smith’s work.

Using a broad measure of surplus-value – by following the procedure of dividing aggregate *value added* into two parts: 1) *profit* and 2) *employee compensation* – also suggests Smithain affinities insofar as this procedure seems informed by Adam Smith’s “trinity formula” rather than by Marx’s value-theoretic. Marx made it clear that he rejected Smith’s method because it was incapable of adequately explaining origin and nature of the surplus product under capitalist relations of production.²³⁰ Both Roberts and Moseley use this wholly bourgeois procedure to estimate quantities of surplus-value and to calculate the profit rate on productive capital; but Roberts also proceeds to add wages to the denominator while Moseley does not. This latter move by Roberts poses another problem by conflating *stock* and *flow* variables in the calculation of the Marxian value magnitudes. As Murray Smith argues, the total wage-bill is a *flow* that actually represents an *ensemble of flows of value* – some representing new value and some previously existing value.²³¹ And as Marx’s law is formulated as the ratio of two value magnitudes consisting of *s*, a flow variable, and *C* a stock variable,, the denominator must represent the value of the *stock* for which capital has been *advanced*.

²²⁹ Ibid., p. 44, 47, 97.

²³⁰ Adam Smith’s ‘trinity’ being rent, labour and profit – so in actuality a dualism, labour and profit; while Marx’s value-theoretic is triadic, $P = c + v + s$. See Marx 1991, p. 602.

²³¹ Smith 2010, pp. 56-59.

Despite the wide-ranging theoretical and methodological differences highlighted in this chapter, the general consensus is that profitability fell as the composition of capital rose after World War 2, and that falling profits induce crisis. Marx recognized that ‘capital itself’ is the obstacle to capital accumulation, and this is precisely what the combined analyses of these Marxists show.²³² Their scholarship has empirically substantiated the historical limitations of the capitalist system that Marx identified over 150 years ago. They provide empirical proof that the historical trend of the capitalist system is to greatly benefit the owners of capital at the expense of those who struggle to produce it. What follows from this is the need to abolish capitalist social relation of commodity production and exchange in full, and replace capitalism through the reorganization, internationalization and socialization of the world economic system based on the scientific-socialist paradigm that Marx and Engels spent their lives framing.

Addendum: Financialization and Fictitious Capital

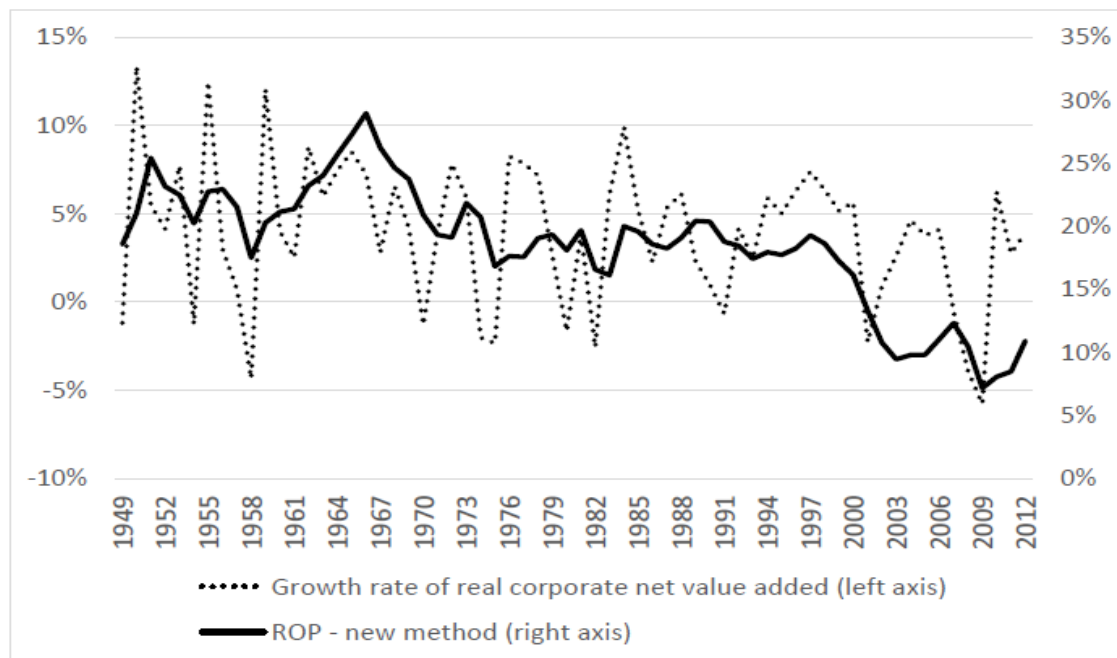
Peter Jones shares many concerns of mine pertaining to the measurement of profitability and its determinants *à la* Marx. Jones, for example, argues that many ostensible Marxist economists subscribe to wholly inadequate Marxo-Keynesian or Neo-Ricardian interpretations of Marx’s theory of surplus-value.²³³ As an admirer of Andrew Kliman, Jones upholds the ‘temporal single system interpretation’ as well as the fundamental postulate of a falling ARP accompanied by a rising OCC. Jones also follows the conventional and canonical treatment of necessary unproductive expenses as a ‘non-profit’ and ‘absolute deduction’ from surplus-value. Instead of focusing on the measurement of the denominator of the ROP as Kliman does, Jones looks closely at its numerator; specifically, how we conceptualize and calculate an accurate measure of ‘actual’ surplus-value.

²³² See Marx 1973, p. 476.

²³³ This includes Baran and Sweezy’s *Monopoly Capital* and the majority of David Harvey’s work, for example.

This means that the proper measurement of ‘corporate surplus-value’ (what he calls the corporate profit derivative component of surplus-value) is his chief concern.²³⁴ Furthermore, Jones claims that he can calculate the magnitude of essentially *non-fictitious* ‘corporate surplus-value’ via the unique procedure of measuring on the expenditure-side rather than the income-side of the national economy. Along the lines of what has been argued in this study, Jones sees fictitious capital as something that destroys the equality between the ‘income and expenditure of value’, generating a misleading picture by illegitimately inflating the NIA category of *domestic corporate profits*.²³⁵ Because of this, Jones decides to calculate *s* by using his own “net revised output datasets” that he believes will yield a non-fictitious ARP measurement. The result is an ARP that displays a paradoxical downturn over the 1990s and 2000s.

Figure 19. Jones’ ‘Non-Fictitious’ Average Rate of Profit, US Economy 1949-2012.



Source: Jones 2013, p. 17.

²³⁴ Jones 2018. This is a newer, revised and far superior version of Jones’ 2013 work. For the purposes of this section, I focus on his 2013 work.

²³⁵ Jones 2013, p. 10. Here Jones is referring to the NIA category of ‘domestic corporate profits’.

Here, Jones' ARP (ROP in the Figure above) declines at an unrealistic rate starting in the 1980s. His method of calculating 'corporate surplus-value' has led him to remove an excess of profits, negating the neoliberal recovery. Jones rightly considers 'capital gains' fictitious, but so does the NIA. Therefore, accounting for 'capital gains' is Jones' first mistake of double-counting. His second mistake comes with the treatment of value added in the financial sphere as an 'intermediate input' rather than a part of the final output.²³⁶ As Takuya Sato notes, the NIA adopted a new policy in 1993 which counts value added in the financial sphere as final output, meaning that Jones' method cannot resolve the problems associated with fictitious capital aggregated alongside financial profits in the national accounts.²³⁷ Contrary to Jones, Sato argues that the best strategy for dealing with fictitious profits in the NIA accounts is to distinguish between actual and fictitious profits – a disaggregation to suppress fictitiousness.²³⁸ Jones attempts no such disaggregation.

Based on Sato's recommendation – and proceeding from the law of the tendential equalization of *profit rates* – I 'normalize' the profit rate of the FIRE sector by bringing it into line with the average non-FIRE profit rate. This is done by applying the 'non-FIRE ARP' to financial assets, removing much of the so-called "profits" generated by financial speculation and redistributions of income.²³⁹ Consequently, the difference between total financial profits (FP) recorded in the NIA and 'normalized' financial profits (nFP) in a given year is total fictitious capital (FC):

²³⁶ Jones 2013, p. 13.

²³⁷ Sato 2015, pp. 66-7.

²³⁸ Sato, found in Smith and Butovsky 2018, p. 343.

²³⁹ Take for a given year a non-financial ARP of 15 percent and a financial rate of profit of 35 percent. This procedure simply 'normalizes' finance's 35 percent profit rate by bringing it down to 15 percent, equal to the rest of the economy. Here, credit for this procedure must be given to my supervisor, as this idea came to him over lunch last summer.

$$FC = FP - nFP$$

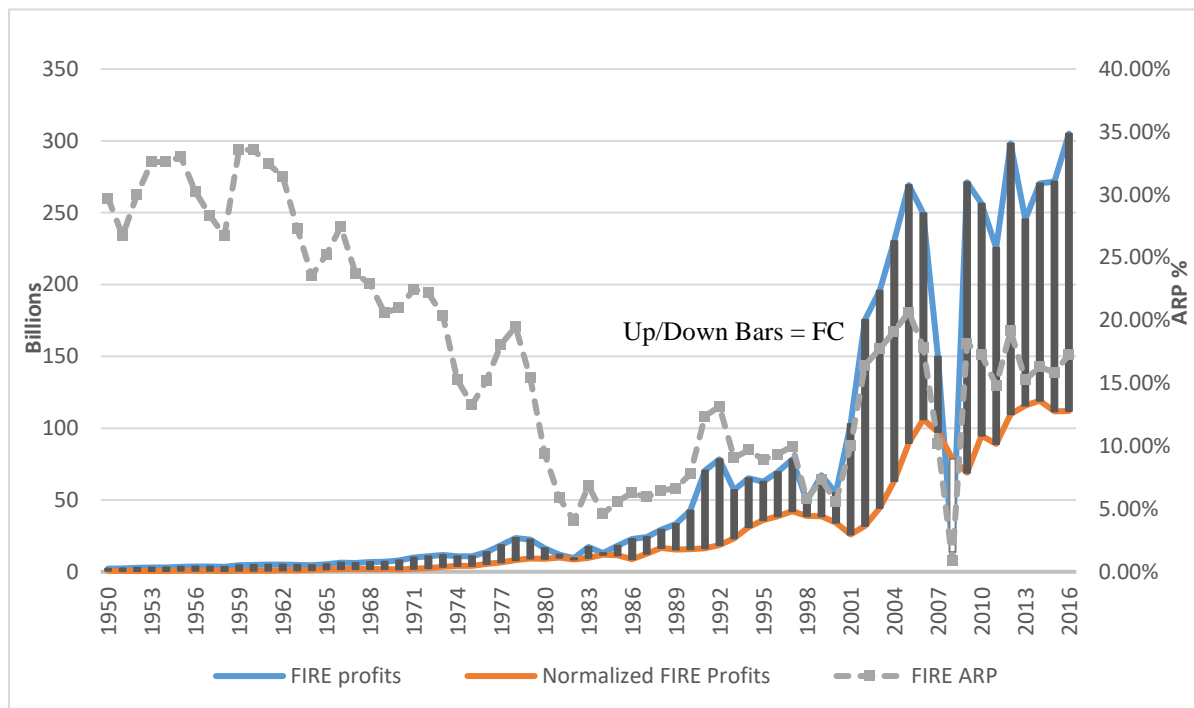
To calculate what I call ‘actual’, or, rather, ‘Marxian Gross Output’ (MGO), one simply subtracts FC from total national output (GDP):

$$MGO = GDP - FC$$

And to arrive at a ‘normalized’ ARP calculation, one needs to calculate nFP. This is done by taking the ‘non-FIRE ARP’ and multiplying it by the corresponding year’s financial assets (FA):

$$nFP = \text{non-FIRE ARP} * FA$$

Figure 20. FIRE Sector Profits Prior to and post 'Normalization', & FIRE Sector Rate of Profit, US Economy 1950-2016.

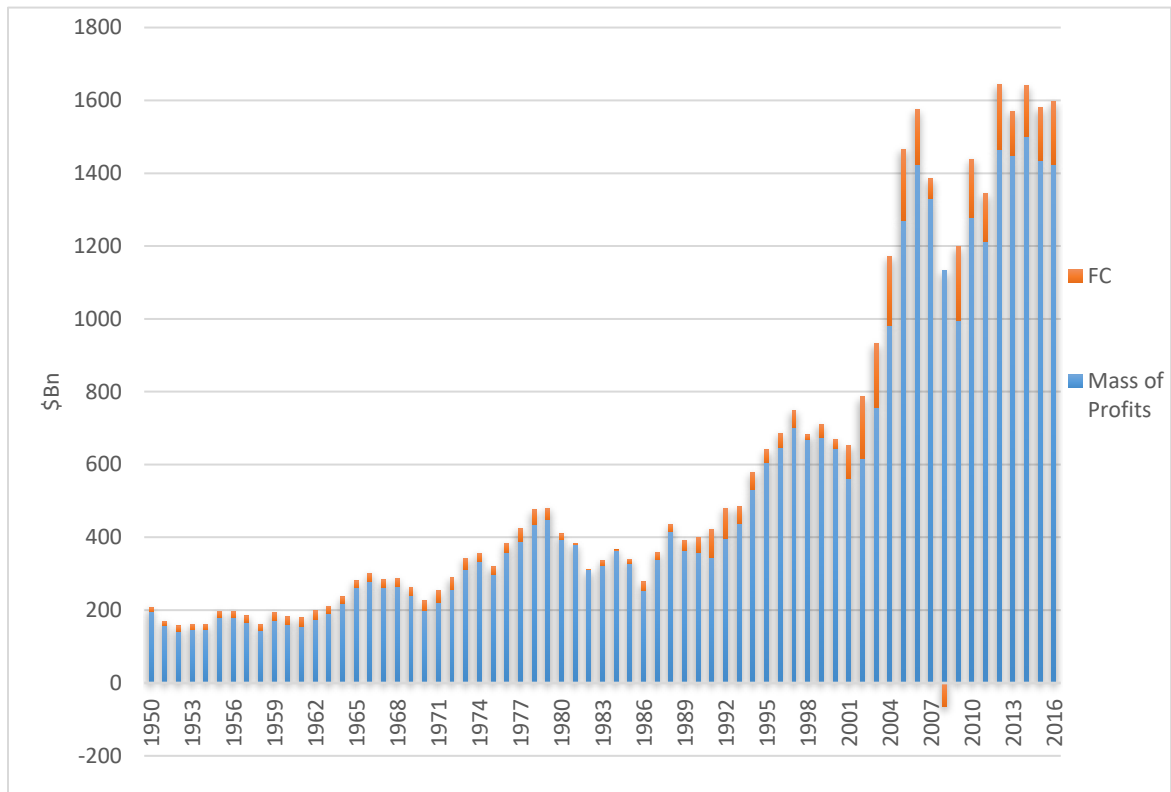


Source: Author's calculations (NIA).

The difference between FIRE sector profits and normalized FIRE sector profits is fictitious capital (FC), indicated by the ‘up/down bars’ in Figure 20. Based upon these results, the normalization method appears to suppress some elements of fictitiousness, especially since

2001. Another way to illustrate this is with the *mass of profits*. Below, I take the mass of profits (i.e., the total mass of surplus-value produced in a year) and highlight the proportion which constitutes FC.

Figure 21. Mass of Profits (FC).



Source: Author's calculations (NIA).

Figure 21 shows that before the 2008 crash, the mass of profits fell in the year preceding it, with large volumes of FC growing in the decade before it. Following the Great Stagflation of the 1970s, the lowest point in Figure 21 was when the “third world” debt crisis finally struck the US in 1986.

As for my own procedure in calculating surplus-value (s), I include the accruals to the top one-tenth of a percent (the top 0.1%) by national income. By doing so, this procedure still treats as surplus-value elements of FC embedded in elite salaries, elements that have unquestionably

grown considerably since the 1980s. It should also be noted that, at the moment, it is impossible to differentiate between FC in the FIRE sector and FC circulating in the broader economy. Nonetheless, as long as the FIRE sector generates massive volumes of FC relative to its size, then this procedure holds merit. For now, this normalization procedure serves to suppress to a reasonable extent *some* fictitious elements of profit in the FIRE sector, thereby lessening (if not eliminating) the spurious impact of fictitious profits included in the NIPA accounts on our measurement of surplus value.

Chapter 4: Marx's Empirical Variables and the Analysis of US Capitalism, 1950-2016

Between the years 1825 and 1985, the laws of development of global capitalism surrendered the world market to 21 industrial crises, averaging one every seven and a half years.²⁴⁰ The US economy, the most advanced capitalist economy in the world, has contracted in recession or depression over 33 times since the American Revolution of the late 18th century, averaging one every six to seven years.²⁴¹ The last US economic crisis, which was also a global crisis, ended in mid-2009, over *nine years ago*. This marks the last nine years as the longest period of seemingly continuous capitalist reproduction without crisis in the history of the US.²⁴² The obvious question: what comes next?

This chapter presents empirical findings pertaining to the fundamental Marxian value-ratios for the (post-war) US economy between the years of 1950 and 2016: the average rate of profit (ARP), the rate of surplus-value (RSV), the organic composition of capital (OCC) and the value composition of capital (VCC). Furthermore, this chapter also presents estimations of the rate of growth of total US output (MGO) and capital accumulation (CA), as well as an assessment of the negative impact of 'systemically necessary unproductive labour' (SNUL) and fictitious capital (FC). The study uses data from the US National Income Accounts (NIA), US Bureau of Labour Statistics, Saez-Piketty (2015), Anwar Shaikh (2016), and Michael Roberts (2017), and contributes to the burgeoning body of literature on Marxian economics by demonstrating the indispensability of a class-based, value-theoretical analysis of "advanced"

²⁴⁰ Mandel 1986, no page.

²⁴¹ See Roberts 2016. In 2017, the sum of global GDP (the valuation of 189 different economies combined) was slightly greater than \$85tr while US GDP was slightly greater than \$19tr – which means that in 2017 the US economy alone contributed to just north of 22% of global economic output.

²⁴² Next to the prosperous stretch of continuous economic growth in the 1990s, now (spring 2018) is the longest stretch without crisis in the history of US capitalism. This "prosperous stretch" may be crisis-less but is seriously lacking any actual growth as it is mostly driven by finance.

capitalism.

The objective of chapter four is twofold. First, I ‘test Marx’. By operationalizing Marx’s concepts as empirical variables based upon the definitions found in the previous chapters as well as the appendix to this chapter, my goal is to ‘test’ his most crucial forecasts against the evolution of US capitalism between 1950 and 2016. Second, I ‘test capital’. By drawing on my own empirical work, I analyze broad trends in capitalist production since the Great Stagflation of the 1970s and the advent of ‘neoliberalization’.

Part I: Marx’s Forecasts, The Rate of Profit and US National Income and Accounting Data

The US Economic Order Today

The US has experienced many years of lively growth, especially following the Second World War; but the US economy has also been stricken by various forms of economic crises and decades of sluggish economic growth. Since the 1970s, the US economy has performed more and more poorly as employment, economic growth and productive investment have all undergone a historic decline. The underlying source of this decline is to be found in the secular downward trend in the economy-wide average rate of profit – particularly, its long descent beginning at the end of the 1940s and early 1950s. However, due to the neoliberal restructuring of the late-1970s and early-1980s, this decline has been masked by the heightened exploitation of the workforce, by globalization and state-driven imperialism, as well as by various mechanisms of financial engineering that have led to a proliferation of fictitious forms of capital circulating throughout the “advanced” economies.

The historical evolution of the US economy confirms several of Marx’s projections about the development of the capitalist mode of production, above all his ‘law of capital accumulation’. As per the latter, capital accumulation has skyrocketed since the Second World War as

investment in fixed and financial assets in the US has increased at a *much faster pace than employment*.²⁴³ According to the 2018 *World Inequality Report*, wealth inequality in advanced capitalist countries is mainly a product of the unequal ownership of private and public fixed and non-fixed capital, and while public capital has contracted due to neoliberalism, private capital owned by just a tiny minority of the population has doubled since 1970.²⁴⁴ Capital accumulation globally has led to such an extreme concentration of capital in the hands of a tiny minority that in 2013 just five companies – Carlsberg, Heineken, SABMiller, InBev, and Anheuser Busch – accounted for over half the world’s consumption of beer.²⁴⁵

At the top of the US Economic Order is that tiny minority of the population that Marx called the bourgeoisie. One way of constructing quantitative measures of inequality in the US social order is by examining national income shares of different population strata as percentages of GDP. However, this measures a pre-determined share of aggregate income and therefore it is not a measure of *class* as Marx understood it. In Figure 22 below, I use the NIA as well as the data-sets provided by the economists Emmanuel Saez and Thomas Piketty to construct after-tax measures of the income of what can be understood as the ruling class (or ruling elite) by examining trends for the top five percent and the top one percent of income as a percentage of Marxian Gross Output (MGO).²⁴⁶ Since the mid-1980s, the ruling elite’s income has been accelerating, peaking in 2006 and again in 2012.

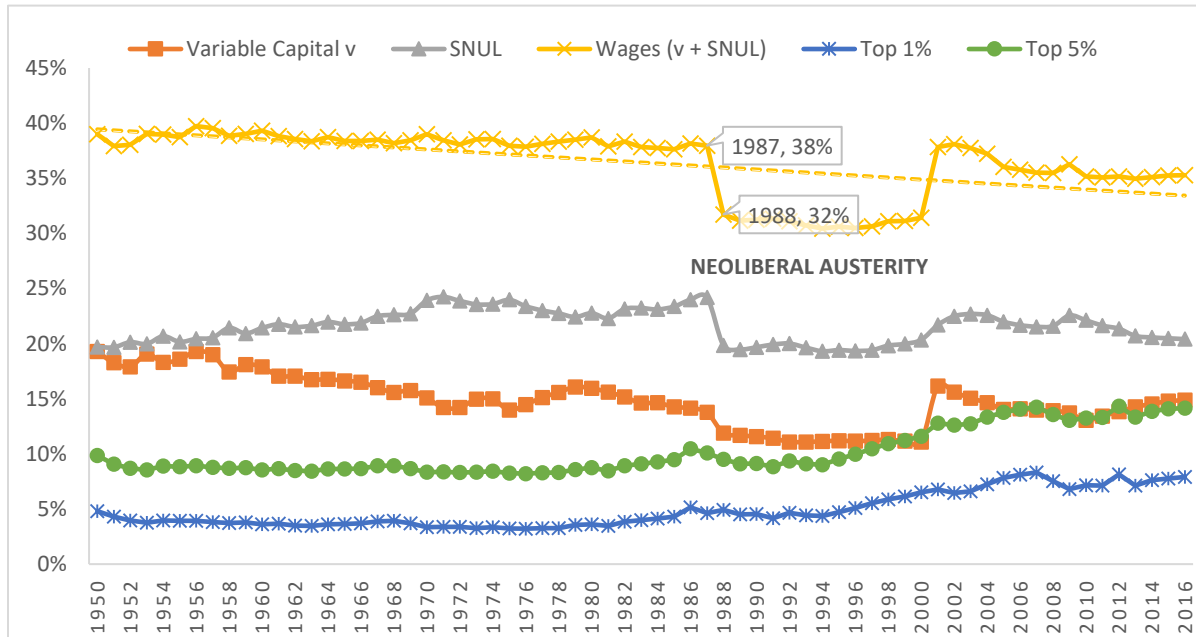
²⁴³ Roberts 2018, pp. 33-36. For a detailed exposé see Shaikh 2016.

²⁴⁴ World Inequality Report 2018, p. 10.

²⁴⁵ Norfield 2016, p. 113.

²⁴⁶ See Saez-Piketty’s excel datasets (2015): table A.1. Retrieved from <https://eml.berkeley.edu/~saez/>.

Figure 22. Aggregate Wage-Bills as a Percentage of Marxian Gross Output (MGO), US Economy 1950-2016.



Source: Author's calculations (NIA).

Figure 22 also includes two Marxian categories as a percentage of MGO: variable capital, calculated as the *after-tax wage-bill of the productive labour force*, and systemically necessary unproductive labour, calculated as the *after-tax wage-bill of the SNUL labour force*. I also include the total working-class wage-bill, which combines both. My findings show that workers' wages declined as a percentage of the value of output over the post-war period and began to decline at an even faster rate starting in 1988 with a near vertical drop of six percent. The chief factor behind this drop was massive neoliberal funding cuts to the public sector, leading to a drop in the SNUL wage-bill in the late 1980s. It was not until the investment boom of the late 1990s and the following 2000-01 dot-com crash that workers' wages partially recovered.²⁴⁷

²⁴⁷ In Figure 21., each flow is calculated as a percentage of MGO (a Marxian approximation for GDP less the fictitious capital located in the FIRE sector): two particular reasons for a somewhat anomalous drop in workers wages between 1987-2000 for example are 1) major shifts in the global economy which led to changes in gross output over the neoliberal period: see Kliman 2011, and 2) the black Monday stock market crash of 1987 which began in China and emerged later in the US economy.

Looking at current trends, it appears to be only a matter of time before the top five percent (by income share) overtake the income share of the collective productive workforce (depicted as v in the above figure). What's more, the clear secular decline in variable capital further confirms Marx's prognosis concerning the diminishing rate of return on capital stock due to the law of falling profitability, as an absolute reduction in variable capital is most likely associated with a contraction in the size of the productive workforce and reduced surplus-value production. Interestingly, the findings in Figure 22 show that the SNUL wage-bill peaked in 1971 and remained flat until 1988. Thereafter it dropped and continued to do so up to 2016. These findings challenge the core thesis of Moseley's 1991 book, which was reviewed in the previous chapter. To recap, Moseley argues that, at least in the advanced economies, there is a tendency for SNUL to increase as output increases; and that the negative impact of this increase on the rate of profit is greater than that of a rising technical composition of capital.²⁴⁸ Contrary to Moseley's thesis, my findings suggest that there is no clear secular rise in the SNUL wage-bill – at least in the period after 1970. This is most likely due to the fact that sophisticated labour-displacing technologies have shifted towards commercial and finance capital (such as advanced computer networking systems). As a result of technological innovation, productivity is increased, and workers are displaced.

Moreover, beginning in the 1980s, much of the SNUL workforce shifted to precarious, menial, and low-wage work, a trend that would also explain why the SNUL wage-bill has been relatively stagnant.²⁴⁹ Indeed, over the last two decades there has been a general rise in precarious-type employment in the advanced economies. Using a narrow measure for precarity, a

²⁴⁸ Moseley 1991, pp. 150-51.

²⁴⁹ In recent years automation has penetrated unproductive capital. Take for example the cashier-less stores that Amazon has now introduced which have fully replaced workers in various types of convenience and retail stores with a quick transaction tap-and-go style checkout.

May 2017 report released by the *US Bureau of Labour Statistics* stated that nearly four percent (5.9 million) of the working population were employed in ‘contingent’ positions. In addition, 12.6 million workers were employed in ‘on-call’ positions and 933,000 were employed by precarious contract firms.²⁵⁰ It is safe to assume that SNUL’s negative impact on the ARP would have been more apparent over the *immediate* post-war period, and that its steady growth over the 1940s, 1950s and 1960s would have contributed to the ‘stagflation’ of the 1970s.

Simon Mohun attempts to locate the “modern capitalist” – whom he calls a “financial oligarch” – by using tax-unit data in his analysis of the *class composition* of the US economic order. Mohun specifies a class that is not in direct *need* of employment and that can, afford a luxurious lifestyle by dint of access to *non-labour income* (such as rent, share dividends, etc.) as the *quasi capitalist class*.²⁵¹ In 1918, this class made up roughly four percent of the US population, but by 2011 it comprised roughly two percent of the population.²⁵²

Moreover, a minuscule fraction of quasi capitalists can be considered the ultra-affluent billionaire capitalists – the industrial/tech giants or finance moguls like Warren Buffet or Jeff Bezos – the wealthiest of capitalists whose fortunes often dwarf the combined national wealth of whole countries. Such fortunes also grants them tremendous global socio-political influence.²⁵³

²⁵⁰ See the US Bureau of Labour Statistics, May 2017, *Economic News Release: Alternative Employment Arrangements Summary*. The BLS uses a narrow measure for precarity which they have termed ‘contingency’, for a more accurate measure see a 2015 article on the Canadian region by Lewchuk *et al*.

²⁵¹ See Mohun 2014, p. 22. While Mohun avoids mainstream conceptions of “income-brackets” he looks specifically at the social position and therefore class (that is, the relation to the means of production). When attempting to disaggregate national income, the issues that one is confronted with when looking at separating people into ‘income brackets’ are immense. Nevertheless, some who attempt to do so report that CEO-to-worker compensation in the US has increased over 900% since the 1970s. See: Mishel and Davis 2014.

²⁵² Mohun 2014, p.25.

²⁵³ By July 2018, Bezos’ personal fortune towered over the competition as it swelled over \$50bn since the beginning of the year, reaching an unprecedented \$150bn, sitting just below the combined fortune of the Walton family. See *Bloomberg*, July 16, 2018.

Now below this ensemble of modern-day capitalists, are bureaucrats and managers. This supervisory layer attends to ‘social upkeep’ and functions as defenders of capital – something like Marx once called ‘functioning capitalists’. Mohun refers to them as ‘labour-power dependent managers’ rather than capitalists because of their particular social position in relation to commodity production. These ‘well off’ managers (including state bureaucrats and politicians) take home hefty incomes primarily derived from the performance of salaried labour rather than ownership of assets (although, like some affluent workers, they normally enjoy ownership of significant pension funds at the very least). Based on Mohun’s estimates, this ‘managerial class’ had almost doubled from eight percent in 1918 to roughly 14 percent by 2011.²⁵⁴

Finally, Mohun finds that roughly 84 percent of wage and salary earners can be considered working-class, down from 88 percent in 1918.²⁵⁵ At one pole one finds a small minority of affluent workers who can be viewed as part of the *upper* echelons of the wider society (perceived, perhaps, as the “upper-middle-class”²⁵⁶) while at the opposite pole, one finds an ‘under-class’ (a ‘reserve army of labour’, as Marx called them), which constitutes a marginalized and “specially oppressed” layer of the working-class.²⁵⁷ Consider the following: a 2004 US study found that the bottom quintile of the white working population *owned over 400 times the wealth* of the bottom quintile of the black working population.²⁵⁸ This suggests that racialized workers in the United State experience a special oppression that distinguishes them from their white counterparts. To put this into perspective, in the US in 1918 the *average*

²⁵⁴ Mohun 2014, p. 25.

²⁵⁵ Ibid.

²⁵⁶ These are high-skilled technology-based workers for example, or those who have benefited in some way or another from major shifts in the economy, from inheritance, or perhaps they are low-level department-based supervisors or ‘key-holders’. These are the beneficiaries of capital, the “well-paid” workers, entirely unrepresentative of the masses.

²⁵⁷ There are more classes in society than this, such as the petty-bourgeoisie (small-scale producer or employer).

²⁵⁸ Williams 2004, pp. 683-85. See Mills 2014, p.28.

individual quasi capitalist (whose class made up four percent of the population) was “worth” 3.7 times the average ‘LP dependent manager’ and 11 times the average worker.²⁵⁹ In 2011, the average “quasi-capitalist” (whose class now makes up two percent of the population) saw his wealth rise to 5.8 times that of an ‘LP dependant manager’, 21.8 times that of the average worker, and thus thousands of times that of the average black worker.²⁶⁰

The Value Composition of US Output

The Mage-Smith perspective demonstrates that the massive expansion of unproductive expenses in the advanced economies – specifically, over the immediate post-war period – has become a major systemic ‘overhead cost’ which has long impaired capital accumulation. The growth in the unproductive wage-bill has an inverse relationship to profitability. In other words, over the post war era it appears that the greater the magnitude of surplus-value relative to output the larger the SNUL wage-bill. The increase in the magnitude of SNUL is a result but never the cause of an increasing mass of surplus-value. Although SNUL operates in conjunction with the social capital, its magnitude depends on the quantity of output – the total mass of saleable commodities *must* be constantly realized as exchange-values in price form, and the realization process depends upon the performance of SNUL labour.²⁶¹

In order to study trends in the value composition of capital for the US economy, I draw on the method found in Murray Smith’s 1984 MA thesis. The ‘value composition of output’ (VCO) is a ratio involving all three Marxian flows of value: surplus-value (s), variable capital (v) and the flow of constant capital (c). The purpose of the VCO is to construct an empirical

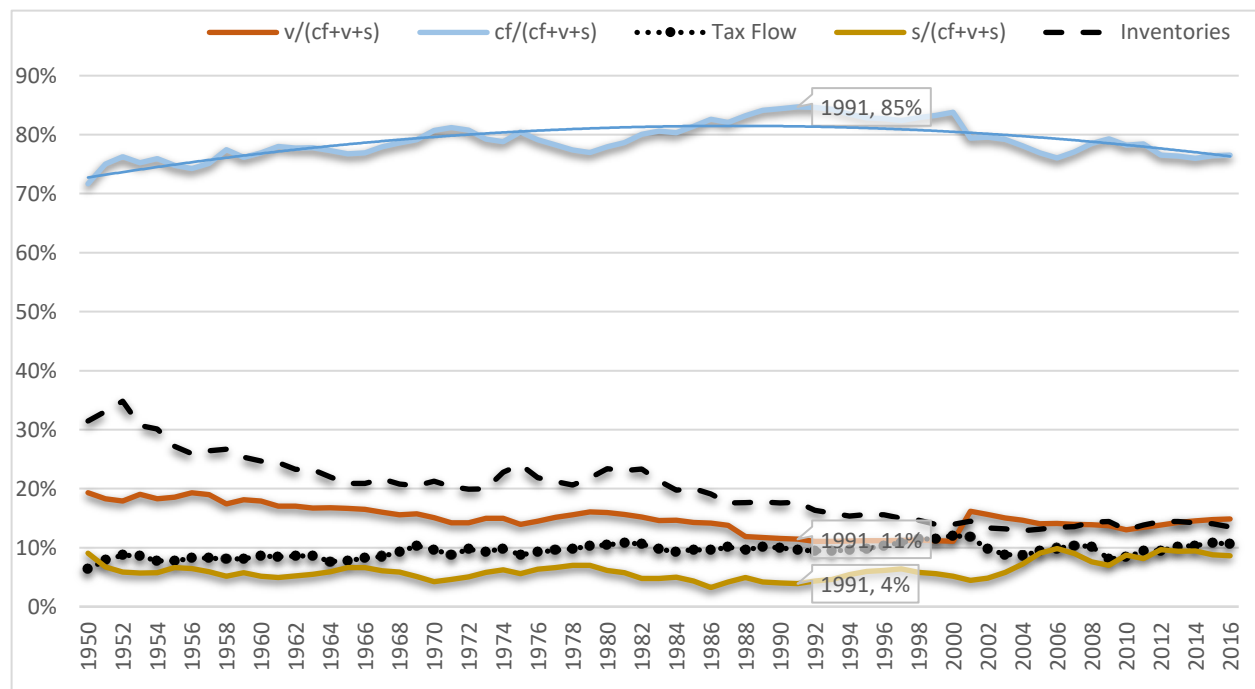
²⁵⁹ Mohun 2014, p. 25.

²⁶⁰ Ibid.

²⁶¹ Smith 2010; Moseley 1991. However, this requires a caveat. Unproductive capital has long introduced labour-saving technologies such as ‘self-checkouts’. But this is become more and more advanced and pronounced throughout the digital age as online-shopping and delivery, etc.

measurement alongside the ARP that tracks the composition of value (re)production (the *flows* of value produced annually). Other things being equal, an increase in the constant capital flow results in a relative reduction in the new value added to the economy. As against the *proto-reformist* procedure of treating SNUL (S) as a deduction from surplus-value (s) after the fact ($s - S$), as with Moseley, Jones, Shaikh and Tonak, I subscribe to the Mage-Smith approach to SNUL which treats S as a component of constant capital (cf). Since cf incorporates a myriad of different value streams (such as capital depreciation, raw material consumption, taxes, fuel, etc.) I also include in the figure below *Inventories* and *Tax Flow* to ensure that fluctuations in the VCO are not simply mistaken for increases in taxes or the cost of goods.

Figure 23. The Value Composition of Output (VCO), US Economy 1950-2016.



Source: Author's calculations (NIA).

Because *cf* represents the annual consumption of the ‘factors of production and reproduction’ that play an *indirect* role in valorization, SNUL is subsumed under this value category.²⁶² While the value of *Inventories* evinces a serious decline, the *Tax-Flow* remains steady, hovering around 10 percent of MGO over the 66-year period of study. Similar to the SNUL wage-bill found in Figure 21, *cf* slows its longitudinal ascent in the early 1970s, and from 1970 to 2016 its trend is essentially flat. The sharp drop in the SNUL wage-bill in 1988 (seen in Figure 22) is reflected in the VCO by a minor downturn in *cf* in 1988. In 2016, the components of annual output consisted of 77 percent *cf*, 14 percent *v*, and 9 percent *s*.

Mostly because its trend has been relatively flat since the 1970s it appears that the negative impact of SNUL on the ARP was marginal over the entire period studied. But it should be noted that the period in which the ARP fell most dramatically was also the period in which SNUL expanded most rapidly. In regard to Moseley’s 1991 study, his empirical analysis was conducted between 1947 and 1977 so it is possible that the hypertrophy of the SNUL-sphere over the immediate post-war period would have been more noticeable then. That being said, it appears that SNUL’s negative effect on profitability is significantly less than that of the rising composition of capital.

The Average Rate of Profit for the US Social Capital

Since capitalism is a mode of generalized commodity production dominated by the private appropriation of profit, the ARP is a reflection of the ongoing class struggle between capital and labour and an expression of the contradiction between the development of the forces of production and the historically specific capitalist relations of production.

²⁶² This does not include ‘fixed constant capital’ (*C*) – which is the denominator for the ARP.

Because the NIA data series are not conducive to empirical analysis in the Marxian tradition, many modifications must be made. As suggested by Smith and Butovsky, in order to calculate variable capital the national wage-share must be segmented into the categories of productive and unproductive labour, and then a crude ‘effective tax rate’ must be applied to obtain after-tax wages. I have calculated variable capital (v) as the *after-tax* income of productive workers based on the NIA figure *employee compensation*, less the *after-tax* income of the *top ‘one-tenth of the top one percent by income’* (what I see as income of the capitalist ruling class/elite), and less the *income* of the SNUL wage-bill. The following NIA sectors are defined as unproductive: *finance, insurance, real estate, legal services, wholesale, general government, business services and other miscellaneous services* (see the Appendix to this chapter for my methodology). Due to various limitations in the data, all other workers are considered *productive* labourers.²⁶³

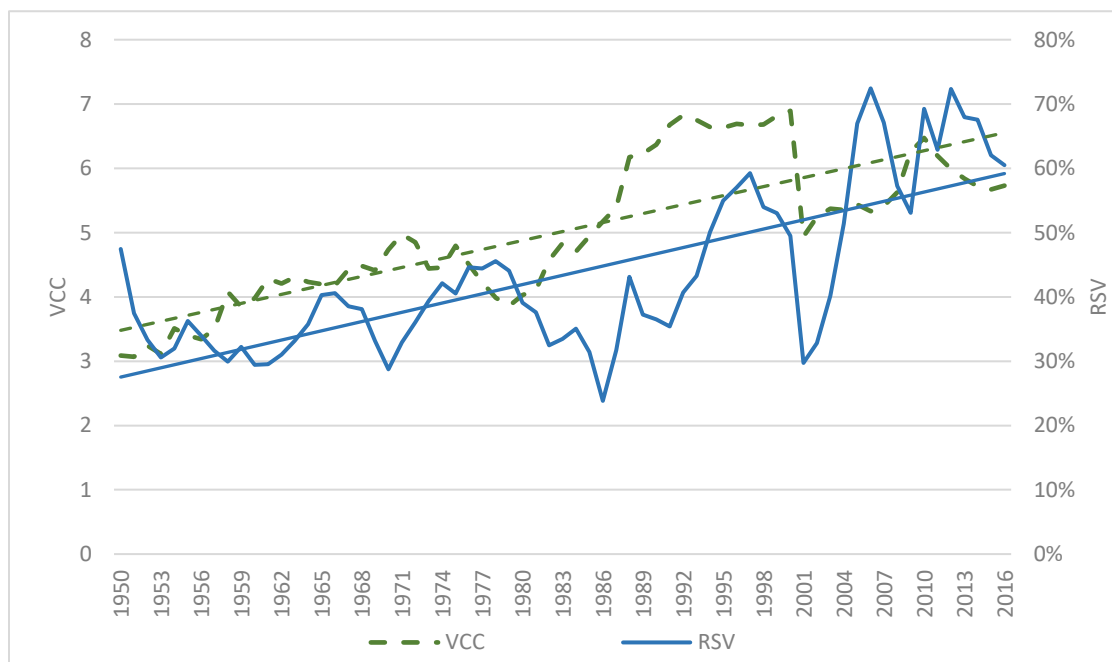
Since I adhere to the ‘temporal single system interpretation’ of Marx’s value theory, I concur with Kliman and Carchedi that the historical valuation of fixed assets is what truly matters. Accordingly, C is calculated as the *historical-dollar value of private fixed assets* across the whole economy (i.e., both productive and unproductive assets) that corresponds to the *previous year* – meaning that, for example, the 1949 NIA figure is imputed for the 1950 year. And finally, I calculate surplus-value (s) as *after-tax domestic corporate profits* (in which the FIRE sector’s profits are normalized, see Figure 20) plus the *after-tax income* of the ‘*top one-tenth of the top one percent*’ (*the top 0.1%*) of the recipients of the national income share.²⁶⁴ I

²⁶³ To note, this is a serious compromise because not all workers employed by productive capital are indeed productive of surplus-value and, moreover, sometimes a single worker can fill both a productive and unproductive role within the same work-hour.

²⁶⁴ Data on the top 0.1% by income was retrieved from Saez-Piketty’s excel datasets (2015): table A.1. Retrieved from <https://eml.berkeley.edu/~saez/>. For the 2016 year, I use the data from 2015 but add inflation.

believe this procedure generates a relatively accurate picture of the surplus-value produced. Unlike Carchedi and Roberts, I do not include v in the denominator of my ARP calculation because, from the point of view of the social capital, there is no meaningful investment in variable capital *prior* to production and the ‘advanced capital’ in Marx’s rate of profit in *Capital Volume III* (either productive or SNUL workers).²⁶⁵ As previously mentioned, I adopt the Mage-Smith approach insofar as I have allocated SNUL as a component of *cf*.

Figure 24. Rate of Surplus-value & Value Composition of Capital, US Economy 1950-2016.



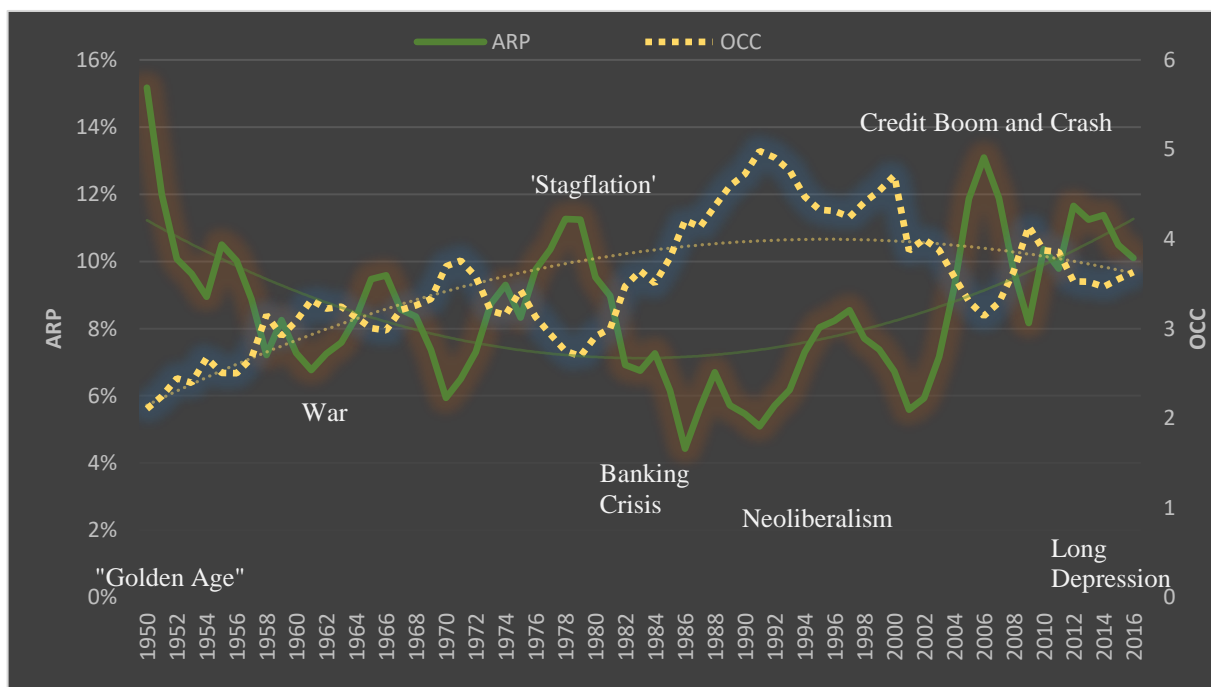
Source: Author's calculations (NIA).

According to Marxist theory, if the VCC – expressed in value terms as C/v – rises at a faster rate than the RSV – expressed in value terms as s/v – the ARP will also fall, other things

²⁶⁵ Mage 1963, p. 36.

being equal. Figure 24 shows that the RSV and the VCC have a near identical slope, which, in turn, implies that the trend in the corresponding ARP will be roughly flat – and indeed it is (see my preferred ARP measure below). The neoliberal restructuring involved austerity measures that were forced upon the working-class and operated as a boost to profitability. Figure 24 shows that the RSV maintains an altitude north of 50 percent for the *greater part of the last three decades*. The rising VCC trend also reflects the relatively minor destruction of capital since the late 1970s, at least up to the Dot-com crisis of 2000-01.

Figure 25. Average Rate of Profit & Organic Composition of Capital, US Economy 1950-2016.



Source: Author's calculations (NIA).

Figure 25 reveals my ARP and OCC trends over the same period – my *after-tax historical cost* and ‘normalized’ ARP and OCC measures for the US social capital. As the US emerged victorious from the Second World War, the rapid post-war advancement in the methods

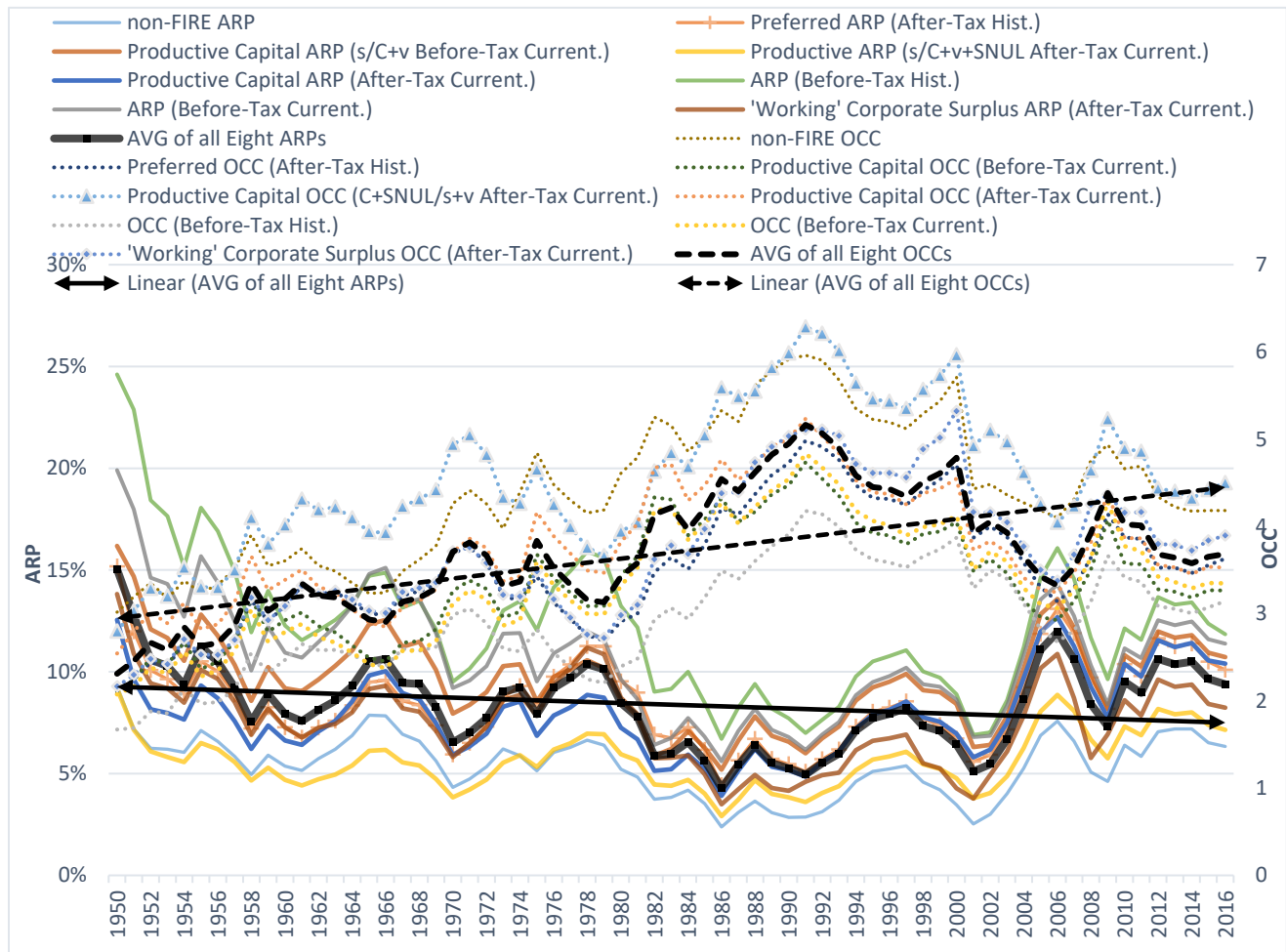
of production forced a steep decline in the ARP as the OCC rose up to 1970. The prosperous stretch that followed the initial stages of the Vietnam War was only temporary as the inner laws of capital forced escalating interest-rates, triggering a crisis in 1969-1970 and compelling US President Richard Nixon to abandon the Bretton Woods monetary system in 1971. Toward the end of the 1970s inflation was running rampant. At the same time, however, there was little economic growth and by 1980 the ARP was falling.²⁶⁶

The Great Stagflation of the 1970s induced a near uninterrupted decline in US profitability of near 50 percent from 1979 to 1983. As a result of the various economic malfunctions from Great Stagflation, the “solution” to the unassailable contradictions of capitalism was draconian neoliberal social architecture. This new architecture, as Carchedi and Roberts argue, with its dismantling of various less-profitable industries, globalization, the massive expansion of private debt and wide-spread austerity programs, has led to a new economic environment with less crises overall but also much less growth.

Following the banking crises in the 1980s, the hyper-financialization of the US economy culminated in a mostly fictitious, financial boom over the course of the 2000s which ended in a financial crash that shook the world. And while a slight post-crisis recovery took place in 2012, and again in 2015, profitability has yet to return to its earlier 2006 level. Hence, it is entirely plausible to speak of what Roberts calls ‘the Long Depression’.

²⁶⁶ Not only did the relative price in the means of production decrease in the 1970s which would boost the rate of profit, there were low levels of fixed constant capital in the US around this time – primarily due to the severity of the Great Depression of the 1930s. See Moseley 1991, pp. 67, 99. However, capital accumulation (CA) increased at an unparalleled rate in the late 1970s (see Fig. 31. in part II of this chapter).

Figure 26. Eight Variegated ARP & OCC Measures & Averages, US Economy 1950-2016.



Source: Author's calculations (NIA).

Stemming from the ubiquitous 'law of labour value' is what Marx, Engels and many others considered the most important law of political economy: the 'law of the tendency of the rate of profit to fall'. In Figure 26, I have taken it upon myself to operationalize eight variegated ARP and OCC formulations based on the work found in Chapters Two and Three of this study. I have also presented a calculation of the *mean of all eight ARP and OCC formulations along with* their respective trendlines as well. What this suggests is that when one 'tests Marx', even in somewhat different ways, the actuality of his law of profitability proves to be quite striking. All

of the ARPs depicted here display a *clear secular downward trend*, while the corresponding OCCs show a *clear secular upward trend* – just as Marx so aptly anticipated in the 19th century. It is difficult to deny that the weight of evidence empirically confirms that over the long run profitability suffers as the composition of capital rises. under capitalism.²⁶⁷ Displaying such a counter-intuitive and irrational socio-economic dynamic, this suggests that capitalism can *never* be a system tailored to meeting the fundamental needs of all of humanity or conducive to meeting the great challenges that we face in the 21st Century.

The ARP with the lowest rate of return and therefore the highest ratio of dead-labour is the ‘non-FIRE ARP’ formulation. It begins at 9 percent in 1950 and ends at six percent in 2016, while the corresponding ‘non-FIRE OCC’ begins at 3 points in 1950 and ends at 4.1 points in 2016 – a 1.1 increase in the OCC is met with a three percent decrease in the ARP. The ARP with the highest rate of return is the ‘before-tax historical cost ARP’ which begins at 24 percent and ends at 12 percent. The corresponding ‘before-tax historical cost OCC’ begins at 2.7 and ends at 4.4 in 2016 – an increase of 1.7 is met with a 12 percent decline in the ARP.

The general trend across all sixteen quantitative value-ratios is that the OCC climbed as the ARP fell over the post war period, *peaking only in 2006*, a peak that should be understood as partly anomalous due to a proliferation of fictitious “profits.” This rather ominous peak should be understood as the culprit behind the major stock-market meltdown triggering the financial collapse in late 2008. Nevertheless, the fact that there is a clear tendency for the ARP to fall as the OCC rises confirms not only the significance and importance of the work of Marx and Engels but also validates the fact that their critical and scientific inquiry, rooted in a historical-class

²⁶⁷ It is worth noting that my preferred ARP and OCC calculations (see Figure 24.) track these averages quite well.

based analysis, possesses actual explanatory power, something that cannot be said about most other economic research today.

Part II: Long Waves and Depression in Capital Accumulation

Academic circles largely ignore contentious theories of long wave upturns and downturns in capital accumulation.²⁶⁸ However, this has not always been the case. In the 1930s, the famous economist Joseph Schumpeter popularized the hypothesis that technological booms launch periods of macroeconomic price-cycles which last 40 to 60 years.²⁶⁹ Here, Schumpeter's postulates were primarily based on the work of the Soviet economist Nikolai Kondratieff who was the first to demonstrate the existence of long wave-cycles at the level of the world economy. Kondratieff rightly argued that economic crises were inherent patterns built into the capitalist system which reoccurred every several years, but he also argued that this turbulence resulted in 'long waves' of upswings characterized by high prices – representative of high wages and robust output – and downswings characterized by low prices – representative of low wages and depressions.²⁷⁰ This means that the 'Kondratieff wave' is both non-linear and tempestuous in nature (like capitalism itself!).²⁷¹ Both the cause behind the wave-cycle and the lifespan of each wave, however, remains inconclusive.

Shaikh's personal attempt to redeem the 'Kondratieff wave' is rooted in his application of it using price levels expressed in *gold* rather than in national currency. By using the gold price series data, Shaikh's research shows that such wave-cycle is present in the post-war US economy. Moreover, Shaikh also demonstrates that the major economic crises that shook the

²⁶⁸ In moving from his essential notebook (the *Grundrisse*) to *Capital*, Marx started to write about 'industrial cycles', before he only wrote about commercial or money-based crises. See chapter 15 of *Capital I*.

²⁶⁹ Schumpeter [1964]2006, pp. 1123-24.

²⁷⁰ Ibid.

²⁷¹ Shaikh 2016, pp. 726-27.

world over the past 200 years, all of which originated in the advanced capitalist economies, have commenced sometime during the downturn of one of these wave-cycles.²⁷² But since the 1960s, the duration of Shaikh's wave-cycle has become shorter than that of Kondratieff or Schumpeter's initial hypotheses, falling closer to that of Ernest Mandel's with a lifespan of roughly 20 years.²⁷³ It appears that in the post-war US economy such wave-cycles have become shorter in length.

A few others adhere to some sort of long wave theory as well. Moseley's Marxist approach observes the post-war rise in the organic composition of capital alongside an increase in the unproductive work-force as core culprits behind the Great Stagflation of the 1970s. Moseley argues that the US economy transitioned from a 'long-wave period of expansion' in the late 1970s to a 'long-wave period of contraction' thereon.²⁷⁴ In a similar vein, Kliman argues that advanced capitalism's dynamism was unable to pull the US economy out of the slump it entered in the early 1970s – that is, well before neoliberalization – and that any so-called recoveries following this slump are mere “paper recoveries” from finance. Kliman believes that referring to the post-1970s breakdown as just a ‘long downturn’ or a ‘crisis of neoliberalism’ paints a misleading picture because the structural crisis, rooted in the essential relations of capitalist production, has intensified since the 1970s, so he prefers the term ‘relative stagnation’.²⁷⁵

²⁷² Shaikh 2016, p. 727.

²⁷³ Mandel 1976, pp. 120-22.

²⁷⁴ Moseley 1991, p. 2.

²⁷⁵ Kliman 2011, p.9. The opening passage to Gerard Dumenil and Dominique Levy's recent book summarizes the so-called ‘crisis of neoliberal strategy’ quite well: “Neoliberalism is a new stage of capitalism that emerged in the wake of the structural crisis of the 1970s. It expresses the strategy of the capitalist classes in alliance with upper management, specifically financial managers, intending to strengthen their hegemony and to expand it globally [...] The contemporary crisis is an outcome of the contradictions inherent in that strategy. The crisis revealed the strategy's unsustainable character, leading to what can be denoted as the ‘crisis of neoliberalism’” (2011, p. 1). As this study has attempted to demonstrate – and for a matter of fact, many of the studies that I have reviewed – that the ‘historical structural crisis of capitalism’ is not over; ultimately expressed in the form of a falling rate of profit accompanied by a rising technological composition of capital.

However, Kliman's argument is rooted in the false notion that the wage-bill has *not* decreased over the neoliberal period.

For Smith and Butovsky, it is not waves per se but an accrual of contradictions which led to the emergence of a 'multidimensional crisis of valorization' in the 1970s and 1980s. Furthermore, alongside two other grave factors (1, the ecological crisis, 2, the decay of the nation-state system and war), Smith believes that humanity has entered a 'twilight phase' of capitalism, in which the working-class either brings about a new socialist world or capitalism brings about the destruction of it.²⁷⁶

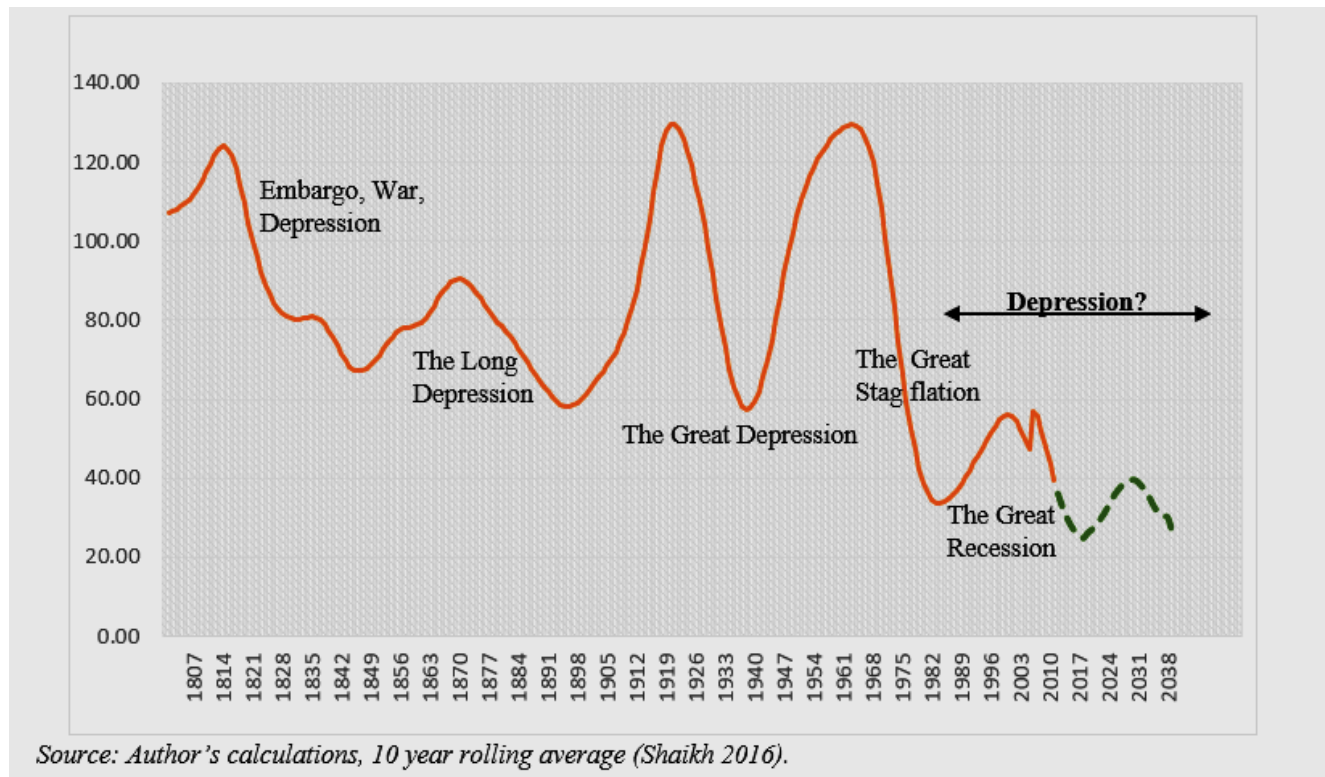
In his 2006 book, *The Economics of Global Turbulence* – rooted in a Smithian conception of value – the economic historian Robert Brenner refers to the post-1973 US economy as 'the long downturn' where economic performance was weak compared to not only the immediate post-war period but also compared to the "boom period" that preceded the First World War. Thus, Brenner sees the post-1973 economy as a deep structural crisis "far too extended to be passed off as simply another phase of the Kondratieff cycle."²⁷⁷

Despite the fact I disagree with a large part of Brenner's diagnosis, I agree entirely that the qualitative alteration in "advanced" capitalism at this time is *no mere* result of another Kondratieff wave and therefore cannot be conceived as an outcome of some cycle which occurs every 20-50 years. And although this wave-cycle (formulated in the price of gold) is not the causal mechanism behind this transition to what Brenner refers to as 'the long downturn' – because after all why was this particular wave's downswing so protracted compared to the previous? – this does not mean that such transition cannot *materialize during a downswing*. In actuality, it did precisely this during the downswing in the midst of the Great Stagflation crisis.

²⁷⁶ Smith 2018, p. 19.

²⁷⁷ Brenner 2006, p. xxvi.

Figure 27. The Kondratieff Long Wave-Cycle (price of gold), US Economy 1800-2012, (forecast 2012-2040).



Following the 1982-3 dip the Kondratieff wave-cycle, Figure 27 depicts a qualitative alteration in economic dynamism in which the upswing of each wave-cycle has become significantly weaker than that of the last as the level of prices fails to reach that of previous waves. While the Kondratieff-like wave-cycles of what Schumpeter, Shaikh and Mandel talk of still persist, they have become quite anemic in range compared to before the Great Stagflation where the new peak (i.e., in 2006) fails to reach the previous dip (i.e., in 1938)! In Figure 27, I use Shaikh's gold price data series to chart the Kondratieff wave-cycle; and following Shaikh's procedure, I take the average of the last two waves to approximate the duration of the next wave to further illuminate the depressing trend in performance since the 1970s and 1980s. My

approximation indicates that if this wave-cycle indeed ends in 2018-19, then the next will supposedly begin its decent in the early-2030s and run until 2040.

While Roberts argues that the US fell into a long depression, similar to the long depression of the late 19th century, following the Great Recession of 2008, he dismisses the notion that there has been any form of depression (or at least any form of protracted structural crisis) prior to the 2008 crash. Indeed, for Roberts the world economic crisis that was first unleashed in the US in 2007-08 is the first Great Depression of the 21st century as its aftermath left capitalism in a depression that is approximated to end sometime nearing the end of 2018 or early-2019.²⁷⁸ In his earlier 2011 book, *The Great Recession*, Roberts writes:

Some Marxists have latched onto the secular decline in the rate of profit over the last 60 years as a sign that capitalism is entering a period of permanent economic depression. They cite the different rate of economic growth seen before 1975 and then afterwards. From 1948-74, the average rate of real economic growth (after inflation) in the US economy was 3.85%. After 1975 to 2005, that rate was only 3.1%, *about 20% slower*.²⁷⁹

He continues:

However, this estimate is misleading. If we look at economic growth in each of the four economic periods of upwave and downwave of profitability from our value rate of profit graphic, we find that real economic growth averaged 4% a year between 1948-65, then it fell back to 2.9% a year up to 1982 [...] Between 1982-00, real growth averaged 3.6%, nearly matching the 1948-74 period that many economists concentrate on as the Golden Age. In the current wave from 2001, growth has slowed to just 2.6% a year and it will get slower still.²⁸⁰

But what does this really tell us about the state of the post-1970s US economy? That the neoliberal ‘response’ (1982-00) to the Great Stagflation crisis resulted in a recovery in profitability, and because profits drives growth, such recovery in profitability that occurred in the

²⁷⁸ See Shaikh 2016, p. 724.

²⁷⁹ Roberts 2011, pp. 45-6 [*emphasis mine*].

²⁸⁰ Ibid., p. 46.

1990s (and then again in the 2000s) is a sign that capitalism is no longer in depression? Well, there certainly was a recovery in the 1990s due to an increase in the rate of exploitation and a few other conjunctural factors. And there certainly was a recovery in profitability in the 2000s as well, but the question that must be plumbed is what exactly is the nature of these recoveries? Unlike the 1990s, the “recovery” in profitability over the 2000s never translated into an increase in ‘actual’ economic growth because it was almost entirely ersatz, based in financial markets and relations of credit and debt, specifically in the real estate and banking sector.

To first assess whether or not the term ‘depression’ can be applied here, it should first be defined. The mainstream economic paradigms, rooted in their marginalist conceptions of value, loosely define both recessions and depressions. Regarding the latter, a capitalist economy falls victim to a depression when a pronounced economic downturn continuous for longer than three years.²⁸¹ Roberts, a specialist in recessions and depressions, believes that depression ought to be redefined to when an economy is so weak following a crisis that it takes multiple years for the trend in growth to return to pre-crises levels.²⁸²

Like Roberts, I observe a minor recovery in growth between 1980 and 2000, but a severe decline in growth following the Dot-com crash at the turn of the century. Compared to the economic dynamism that existed prior to the Great Stagflation, however, the recovery in the 1990s was rather weak, and over the 2000s, non-existent. Now, if Roberts extended his conclusions about the US being in a depression back to the 1980s, then I believe a great deal of our argumentation would overlap.

“Recovery” #1: Neoliberal Restructuring

²⁸¹ Roberts 2016, p. 11.

²⁸² Ibid.

It took two World Wars and the Great Depression of the 1930s to set the historical stage for what some refer to as the “Golden Age” of capitalism. By the 1980s, however, the rather draconian neoliberal state-regimes of Ronald Reagan (and Margert Thatcher in the UK) looked to reverse the gains made by the working-class during the so-called “Golden Age” by cutting pensions and various social services, along with mass privatization and the deregulation of financial markets.²⁸³ Ultimately, the neoliberal ‘response’ was a strategic counter-offensive by capital during the cold war which served the purpose of propelling profitability through austerity and destroying organized labour.

Figure 28. Level of US Debt (Public and Private), 1920-2012(2020).



Source: Keen 2012, p.2.

²⁸³ Roberts 2016, p. 61.

Figure 28 shows the debt-ratio (that is, debt as a percentage of GDP) for both the public and private sectors of the US economy.²⁸⁴ Here I use the chart by the post-Keynesian, Steve Keen, which shows that in 1945 total US public debt was at 125 percent of GDP and private debt was at 49 percent of GDP. In the 1970s, US public debt shrunk while private debt began its ascent, the latter peaking in 2009 at a whopping 303 percent of GDP.²⁸⁵

The collapse of the Bretton Woods system of fixed exchange rates a few years earlier along with a sharp rise in the price of oil in 1974 led many “third world” countries to rely on borrowing from US banks in the late 1970s.²⁸⁶ But as total output in many of these countries declined (an outcome of neoliberalism of global proportions) they encountered serious problems servicing the debt loads, which then generated a plethora of sovereign debt crises across the globe. As a result, the US was struck by its own banking crisis between 1985-1986. Not surprisingly the lowest point for my preferred ARP calculation is reached in 1986 (see Figure 25).

Thus, neoliberalism was not only a response to a severe structural crisis, with its move away from a “mixed-economy” to an hyper-competitive, atomized socio-economic and political climate that signified a relentless return to unfettered markets and strong individual property rights, it was also a key factor in the financialization of many capitalist economies.²⁸⁷ Take for example the 16-year period between 1983 and 1999, the number of countries around the globe

²⁸⁴ Kliman 2011, p. 60.

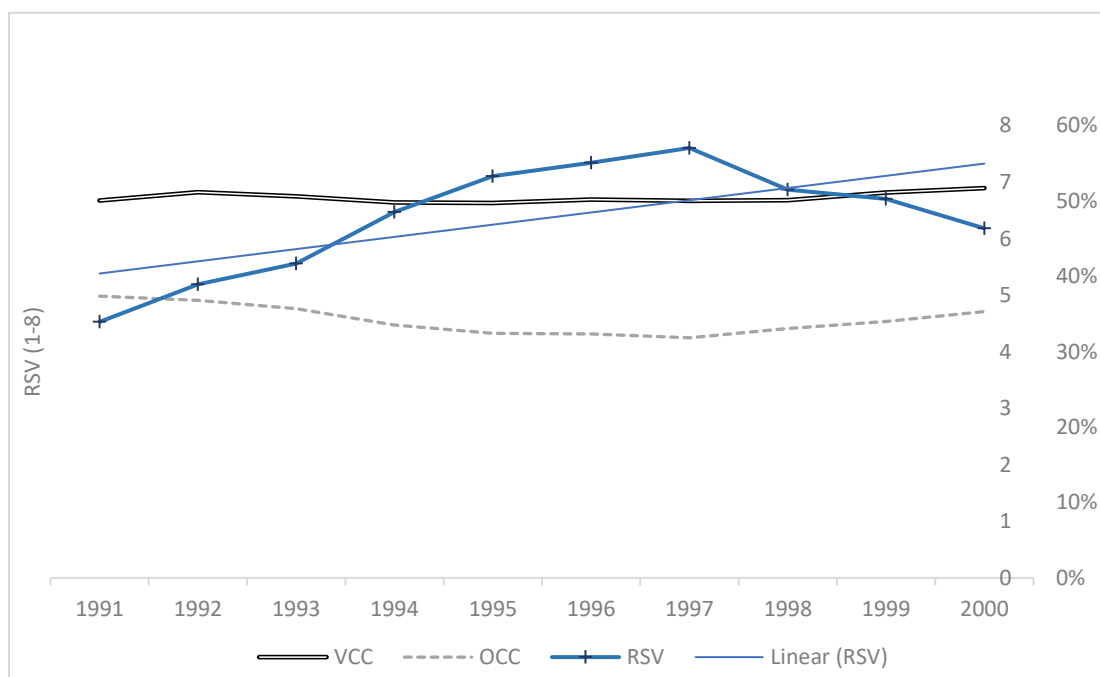
²⁸⁵ See Keen 2012, p. 2-5. Kliman (2011) notes that it is worth mentioning that one of the reasons that the debt-ratio rose so much is because of the slowdown in GDP.

²⁸⁶ Ibid; Harvey 2006, p. 22. Following the initial turning point in 1971, the final turning point in neoliberalization was in 1979 when the US President at the time, Jimmy Carter, appointed Paul Volcker as chair of the Federal Reserve. Volcker’s tactical response to ‘stagflation’ was to allow interest rates to rise as high as necessary in order to stabilize the US-backed global dollar system. While the “Volcker shock” sent the US back into crisis from 1979-1981, this crisis was different; at least not in the sense of its severity, but for the seismic shifts in the global economy that followed.

²⁸⁷ Harvey 2006, p. 2.

that experienced banking crises *quadrupled compared to the pre-1980 period*. Moreover, US private debt started to grow exponentially in the mid-1980s, only slowing briefly in the 1990s.

Figure 29. VCC, OCC and RSV, US 1990-2000.



Source: Author's calculations (NIA).

In regard to the recovery in the 1990s: increases in productivity (from the “digital” revolution), globalization, and austerity measures along with union busting all led the RSV to dwarf its earlier 1978 peak in 1996-7. Such an increase was one of the core reasons behind this recovery, the other was the fact that capital formation was stagnant, depicted here by either a flat or declining VCC and OCC. As the RSV surpassed the VCC mid-way through 1994, it led to a rather small jump in the ARP and thus an increase in growth. But if we compare this recovery and dynamism to the pre-Great Stagflation and pre-neoliberal periods, it is far less robust. Take for example that employment in manufacturing peaked in 1979, just as the ARP began to fall;

and as industrial capacity declined throughout most of the post-war period it peaked again only in 1968. Industrial capacity did begin to rise again in the mid-1990s, however, the peak in the 1990s was only *half that of the previous in 1968*.²⁸⁸ And as Kliman notes in his 2011 book, the Gini-coefficient for the US was higher in the 1950s and early-1960s as social inequality increased thereafter.²⁸⁹ In 1997 the ARP (again, see Figure 25) *never overcame its earlier 1978 peak* – and thus, this is not much of a recovery but a recovery nonetheless.

“Recovery” #2: Out of the Frying Pan and into the “FIRE”

Ultimately, the Great Recession of 2007/08 was triggered by financial meltdown, originating in the banks with mortgage-backed securities and lax financial regulations. Here, the sub-prime housing market was the trigger. Borrowing was reinforced with the expectation that housing prices would continue to rise, or at least not plummet. For as long as low interest rates fed the housing bubble it drove consumption, allowing for much of the populous to spend more than they could normally afford through means of additional borrowing and mortgage equity.²⁹⁰

While this kept the economy afloat temporarily, consumer demand eventually slowed. Once the financial bubble burst, household wealth evaporated and the free fall endured, many powerful Banks and corporations began to implode forcing Bush to spend over \$700 billion to bail out the elite Wall Street executives and bankers responsible for the crash.²⁹¹ Nevertheless, global credit markets collapsed as the world stock market plunged over 50 percent from its peak in early 2007.²⁹² It was the deepest crisis since the Great Depression of the 1930s, and its aftermath was no better.

²⁸⁸ Kliman 2011, p.55.

²⁸⁹ Ibid.

²⁹⁰ Stiglitz 2010, p, 4, 35.

²⁹¹ Ibid, pp. 35-8.

²⁹² Roberts 2016, pp. 66-7.

In the 18 months following the initial crash in October 2007, the US economy contracted at an annual rate of roughly 2.9 percent. From mid-2009 to 2014, its recovery was well below average at an anemic two percent per year.²⁹³ Yet despite this, the top one-tenth of a percent (the top 0.1 %) exceeded a national income share greater than 10 percent twice in the last century. Once preceding the Great Recession in 2007 at a 10.5 percent share, and again following it in 2012 at a 10.1 percent share. And for the top one percent by income, it was again in the years preceding the Great Depression and Great Recession when they took home their greatest shares: once in 1928 and again in 2007.²⁹⁴ For the upper echelons of society, it appears that crisis provides an opportunity for even greater prosperity from not just the standpoint of the social capital where it revitalizes profitability, but for their own personal fortunes, fortunes in which financial markets are used to amplify.

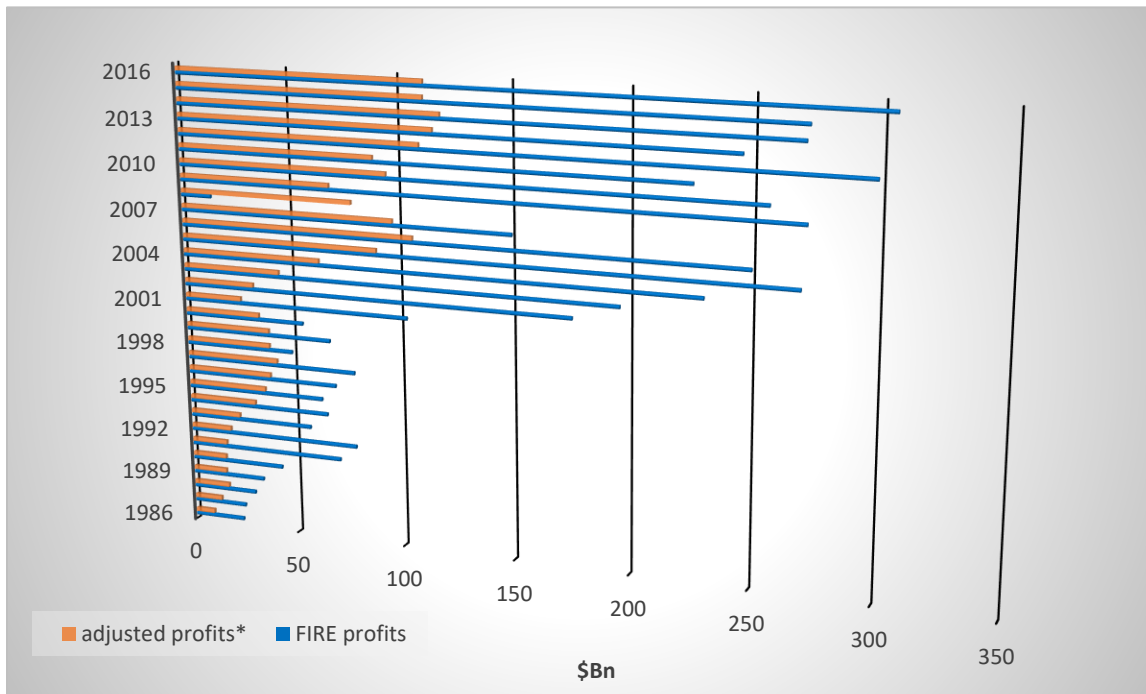
The ARP did not surpass its earlier 1978 peak until 2006. However, the majority of the latter's peak is fictitious. I suppose if my 'normalization procedure' was effective in suppressing fictitious capital (FC) in other sectors of the economy besides just the FIRE sector, the ARP calculation would *not* have surpassed its earlier 1978 peak in 2006, and probably would not have surpassed its 1996 peak either. While various counteracting forces were in play from before, like the cheapening of constant capital through the 1990s, as well as the destruction of capital from the earlier Dot-com crash, by the mid-2000s such countertendencies were all weakening and there ARP began to fall by late-2006 and so did the mass of profits by 2007.²⁹⁵

²⁹³ Ibid, p. 131.

²⁹⁴ Saez-Piketty's excel datasets (2015): table A.1. Retrieved from <https://eml.berkeley.edu/~saez/>. In addition, the top 1 percent by income exceeded a total income share greater than 21 percent three times in the last century. First in 1928, then in 2007 and again in 2012, that is, prior or following some of the most severe crises which were rooted in finance.

²⁹⁵ Roberts 2016.

Figure 30. Levels of Fictitious Capital, US Economy 1986-2016.



Source: Author's calculations (NIA).

By 2005, FIRE sector profits doubled what they were in 2000 totaling a near \$270Bn; surmounting the \$300Bn mark a decade later in 2016. Although the ARP peaked in 2006, this peak was mainly due to an excessive amount of fictitious “profits” treated as real corporate booked profits. Despite all this, the 2006 peak in the ARP was *only two percent above the 1978 peak* – again, this is no recovery. Indeed, Kliman may have been onto something when he stated that in the post-Great Stagflation US economy the majority of recoveries are mere products of financialization and therefore mostly ersatz.

The Assessment

In the case of the US economy the trends in ‘actual’ valorization since the protracted Great Stagflation crisis of the 1970s are rather depressing:

1. Since 1950, there has been a growing diminishing rate of return on capital invested because the ratio of dead- to living-labour (the OCC) has risen, putting downward pressure on the ARP.

According to Marx's law of profitability, the persistent diminishing rate of return on productive capital has led to a structural 'crisis of valorization'.

2. Until the early- to mid-1970s, there was an increase in SNUL relative to productive labour as unproductive capital underwent a rapid expansion. Often this is misconstrued as a transition away from a 'manufacturing economy' or 'industrial capitalism' towards a 'service and sales' economy or 'cognitive capitalism'.
3. Since 1970s, the "advanced" economies have become increasingly financialized and therefore increasingly debt-burdened.

The above two points, combined with point one, form the principle characteristics of the 'multidimensional crisis of valorization'. So, again, the intensifying contradictions of the global capitalist system led to the Great Stagflation of the 1970s and, subsequently, prompted the inherently contradictory neoliberal response. Most notably, this response paved the way for the acute expansion of financial forms of valorization.

4. Since the late 1970s, economic crises are less frequent (meaning less capital destroyed than beforehand), resulting in *less* "boom phases" capable of revitalizing profitability.
5. Beginning in the 1980s, speculation in financial markets – a parasitic, volatile, and ultimately unproductive form of capital accumulation – became the core driver of accumulation, impregnating the economy with massive volumes of fictitious capital/"profits" which constrains 'actual' valorization.²⁹⁶ In addition, at this time the US's debt-ratio began to grow exponentially (most notably: US private debt beginning in 1986).

²⁹⁶ Since 2012, the level of debt and FC in the US economy has astonishingly risen to new heights.

Instead of investing in productive capital and employment, companies of all kinds have been buying back their own shares in order to boost their shareholders incomes by increasing the valuation of their stocks – this is an increasing, not decreasing, phenomenon. As profits were increasingly channelled into financial markets, this permitted the capitalist class to appropriate a larger magnitude of profits – albeit, fictitious “profits” – than they would generate from production alone. Thus, according to Marxist theory, the same factors that bring about an accelerated accumulation of capital and therefore a growth in the total amount of surplus labour performed in the economy also produce a tendential fall in the average rate of profit.²⁹⁷ However, in the ‘era of fictitious capital’ this is no longer the case as investment in financial markets brings neither an advancement in technological innovation nor an increase in the amount of surplus labour performed in the economy.

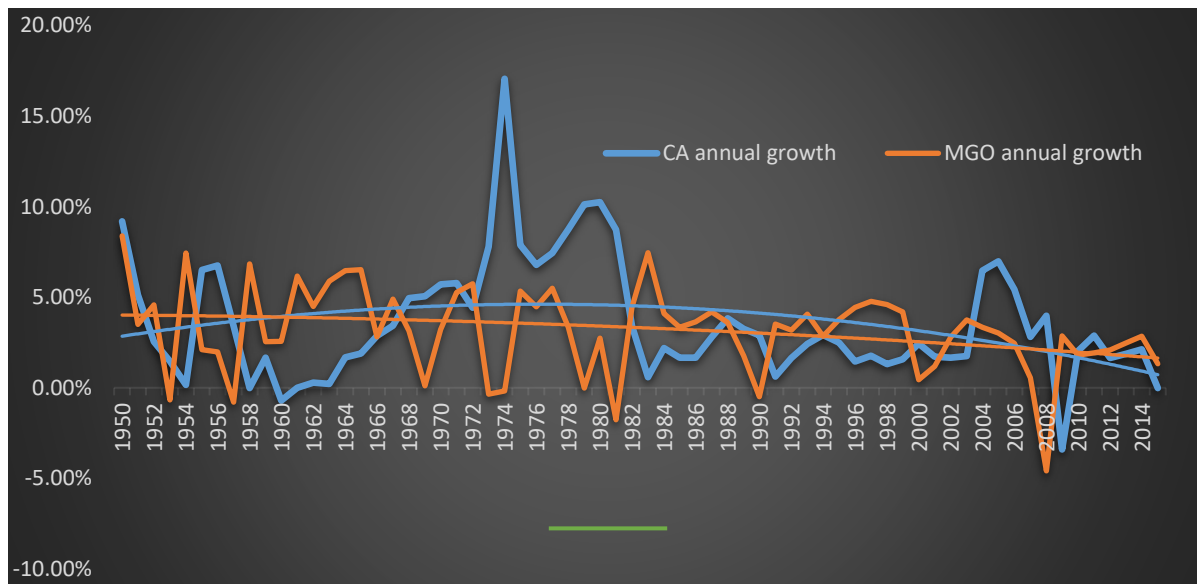
6. Since the 1980s, there has been a *serious slowdown* in productive investment as it has been, and increasingly is, being replaced with unproductive investment and *personal hoarding*. Other things being equal, this has seriously amplified the *diminishing rate of return on capital invested* from the standpoint of the social capital

While points 1-3 form the essential structure of the ‘multidimensional crisis of valorization’, points 4-6 (i.e., the ‘era of fictitious capital’) exacerbate it. It is in my judgement the 1978-1986 crisis ridden juncture dismantled what remained of the socially or systemically necessary conditions of ‘actual’ valorization compared to what existed in the 1950s and early-1960s, or even during the pre-World War “boom” period. According to either of the aforementioned definitions of depression, the US economy descended into a form of depression at the tail end of a long wave-cycle, following the Great Stagflation. This is not some new economic downturn or slump, this is also not some mere ‘crisis of neoliberalism’, and this is also not ‘relative stagnation’ as Kliman claims because valorization has become hyper-financialized compared to before. While the relative performance of the economy has clearly declined,

²⁹⁷ Marx 1991, p. 331.

‘stagnation’ has also become a *normal* feature of everyday life. Similar to the Kondratieff wave measure found in Figure 27, the figure below acts as another illustration of the transition to this meta-crisis which I conceive as a *depressionary socio-economic environment*.²⁹⁸

Figure 31. Annual Rate of Growth (%) of Capital Accumulation and Marxian Gross Output in Constant \$2009.



Source: Author's Calculations (NIA).

According to Figure 31, since 1950 the trend in the annual growth in Marxian Gross Output (MGO) and the Accumulation of Capital Stock (CA) in constant 2009 USD has declined. Since the early-1980s, the US has been struck by even slower levels of growth and accumulation. Over the entire period of study, average annual MGO growth is 3.1 percent and average CA growth is 3.6 percent. From 1950 to 1980, average annual MGO growth is 3.8 percent and average annual CA is 4.4 percent. But from 1980 to 2016, the average growth in MGO and CA

²⁹⁸ Moreover, under this depressionary environment – which I speak of as no typical, singular and protracted economic crisis, but rather a major historical-structural meta-crisis which has resulted in a qualitative alteration in socio-economic dynamism from the standpoint of the actual valorization process – macroeconomic cycles like the Kondratieff wave (rather, Shaikh's iteration) still occur. But compared to earlier cycles, such post-stagflation cycles are much more lethargic (again, see Figure 27.), which is a prime characteristic of depression.

stood at a sluggish 2.6 percent and 2.9 percent. The peak in CA first in the early to mid-1970s and again in the late-1970s is due to rising inflation as well as a much-welcomed rebound from the devaluation that took place during the Great Depression of the 1930s.²⁹⁹ MGO peaked in 1983 only because it followed a major contraction in output a few years earlier. Moreover, as CA is inclusive of the FIRE sector, the 2005-06 peak is mostly a result of the credit-boom of the mid-2000s and should be understood as almost completely fictitious.

Figure 32. The Post Great Stagflation Era: Average Annual Growth (%) of the *Combined GDPs* of the Top 35 “Advanced” Economies by Decade.

1980-89: 3.09%	1990-99: 2.64%	2000-09: 1.75%
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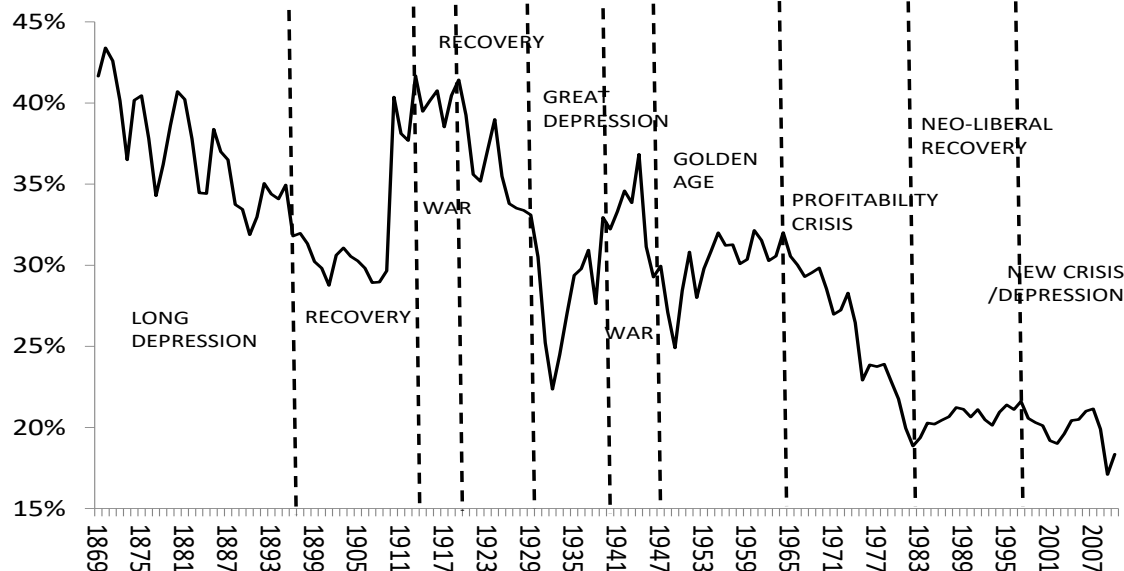
Source: Smith and Butovsky 2014, p. 30 (IMF and World Economic Outlook Database).

Although, when incorporating other wide-ranging variables in the question of humanity’s future, it is quite bleak. Together, the following interrelated problematics: a) “ecological debt” (i.e., unsustainable value (re)production), b) the *continuously growing* financial “house of cards” (with the explosion of stock-buy-backs and other, new ‘financial weapons of mass destruction’), c) the decay of the nation-state system and the colossal wars it sparks, alongside d) the emergence of this depressionary environment as well as major reoccurring meltdowns like the Great Recession, proposes that the global capitalist system has descended into a state of entropy as it drains humanity of its last resources, energy and time.³⁰⁰

²⁹⁹ CA was slow since the 1920s and 1930s up until the 1970s, mainly due to the amount of capital destroyed in during the Great Depression and the World Wars. See Kliman (2011) for insights into this.

³⁰⁰ Entropy, according to the laws of a thermodynamic system, is the unavailability of energy or the inability of converting energy into productive work. A better for definition here is: the decline or deterioration into disorder but not collapse – i.e., “the old is dying but the new cannot be born.” See E. T Jaynes’ short 1991 piece on entropy in economics. Moreover, I find the world rate of profit as per Marx is somewhat representative of the concept of entropy.

Figure 33. World Rate of Profit (Approximation), “World Economy”1869-2010.



Source: Roberts 2017, no page.³⁰¹

Now it may seem like a sufficient recovery is impossible, which may as well be true from an internal point of view, but factors external to the system play a major role as well. Serious political turmoil or economic nationalism like fascism for example could heavily influence the production of ‘actual’ surplus-value by redefining trade relations. Large scale war or catastrophic ecological crisis could reduce the level of fixed constant capital relative to the performance of available surplus labour, raising profitability. Or even the reorganization of the human populous in ways which lead to new, cheap forms of labour-power could lead to some sort of recovery as well.

However, it becomes increasingly difficult to address these issues when the debt-ratio of many so-called “advanced” economies has climbed to such heights, and this has been an

³⁰¹ As there are serious limitations with data at the national level, it is obvious that an accurate ‘world rate of profit’ is impossible to formulate: so, this is a mere approximation by Michael Roberts. Nevertheless, note that the decline and subsequent “recovery” between 1965 and 1983 is yet another illustration of this asymptotic meta-crisis of historic proportions, this depressionary environment.

increasing concern since the 2008 crisis. But it is also very difficult to reduce the level of debt when profitability has been subject to such malaise (rooted in the shrinking of the productive sphere). Take Figure 27 as an example, if prices are unable to return to the level of previous wave-cycles, then it becomes increasingly difficult to service debts that were entered during those earlier cycles when the following cycle is a fraction of its size.³⁰²

Ideally, reducing the role of finance capital in valorization (that is, reducing the levels of debt and fictitiousness and increasing the performance of surplus labour) would be a necessary first step in addressing this structural crisis since the growth of debt and fictitious capital play a major role in the very fruition of this depression to begin with. But, again, it becomes increasingly difficult to do this because the economy has grown to be so reliant on financial markets and debt. The only real solution is a massive destruction of capital which would, albeit temporarily, *refresh* profitability by lowering the organic composition of capital. However, this grows increasingly difficult because, since neoliberalism, there have been less crises overall, meaning less devaluation/destruction overall.

Nonetheless, since the ruling elite do not take the standpoint of the social capital it is therefore highly unlikely that they would spearhead the necessary changes to increase ‘actual’ valorization.³⁰³ So the destruction of capital of *seismic proportions*, which is ultimately disastrous for society as a whole, is the only real solution to this capitalistic quandary – that is, to not only restore the productive sphere itself, but also to restore its rate of return. So it more or less boils down to the likes of another Great Depression and war, nuclear winter, or even social

³⁰² At least at the level of the macro-economy, and other things being equal.

³⁰³ Another example is the work of some critical criminologists who refer a market economy as a criminogenic entity. Take for example market induced social harms like when Goldman Sachs deemed *successful* ‘one-shot cures’ bad for business because, due to market forces, curing hepatitis C is bad for business. See *Consumer Affairs*, March 13, 2018: <https://www.consumeraffairs.com/news/goldman-sachs-warns-biotech-clients-that-curing-patients-may-not-be-sustainable-041318.html>.

revolution. And as investors always gravitate to the place with the highest rate of return – namely, financial markets – the level of investment necessary to restore productive capital will never be reached. So to convince capitalists to spearhead the necessary changes to the productive sphere would mean a task of convincing them to be a ‘revolutionary force’ themselves by acting against the very nature of the system by willingly impairing their own incomes.³⁰⁴

Take for example the priorities of the ruling elite. The minor recovery in the US economy that occurred at the end of 2017 and into early 2018 has led to the “too-big-to-fail-banks” (the 22 largest US banks) to return a greater amount of capital to their shareholders than they receive in revenue, a return estimated *at roughly 25 percent more than the previous year*.³⁰⁵ This is anticipated to yield an unprecedented return of \$170Bn in dividends and stock buybacks over the 2018 year to investors while inflation runs rampant. For a few years now, the Federal Reserve has been preparing to eliminate even more financial regulations like the ‘Volcker rule’ – a regulation implemented by the “father of neoliberalism” himself. This is what policy makers are concerned with. This is where growth is being channelled: to the private sphere, to the financial oligarchs themselves.³⁰⁶

As a result, this implies that capital will continue to attempt to solve any and all crises by using financial tools that actually ends up worsening them. Furthermore, this also means that the financialization of the advanced capitalist economies will probably heighten in years to come.³⁰⁷

³⁰⁴ CNBC, February 2, 2018: <https://www.cnbc.com/2018/07/02/corporate-buybacks-are-the-only-thing-keeping-the-stock-market-afloat.html>.

³⁰⁵ *Financial Times*, June 17, 2018: <https://www.ft.com/content/bcf77ea2-6ff3-11e8-92d3-6c13e5c92914>.

³⁰⁶ *Huffington Post*, May 22, 2018: https://www.huffingtonpost.ca/entry/bank-bill-deregulation-congress_us_5b043b70e4b0c0b8b23ea6cd.

³⁰⁷ At the end of 2017, Trump pushed heavy tax cuts for the wealthy in hopes for a ‘trickle down’ effect that would raise workers’ wages and benefits. However, lowering the tax rate and deregulating financial markets did not result in what was hoped for. The generosity of the ruling elites is nil as long as the law of accumulation and falling profits are in play (and market competition is fierce) as the elites will continue their relentless gluttony and hoard profits. In the end, it was reported that less than 45 of the S&P 500 companies paid any bonuses to their workers.

As a result, and drawing on Smith's inquisitive rebranding of Marx's phrase, such a contradictory social capital combined with such ruling elites' disregard puts an even newer twist on: 'the true barrier to capitalist production' ... *has become the capitalists themselves*.

Conclusion

The tendency for capitalism to periodically fall into crisis has been a recurring theme throughout this study. According to Michael Roberts, there has been no significant recovery in US corporate profitability over the course of the Long Depression. The little devaluation/destruction of capital and no effective reduction in the levels of private debt has made it increasingly difficult to bring profits up since the 2008 crisis.³⁰⁸ While we currently reside in the longest ‘crisis-less’ stretch, there has been no rebound in growth – or at least until 2018.

The recovery that began after the stock-market “adjustment” in early 2018 can be attenuated to the mid- to late-2017 recovery in profitability which set the US economy on track to reach four percent growth sometime in 2018. The ‘pro-corporate’ and ‘anti-working class’ campaign of the current US President, Donald Trump, ended in a reduction in corporate taxation that helped to propel this recovery. Thus, it appears possible that the US will emerge from this Long Depression sometime in the next year or two, and if so, it will probably follow the next recession.

But such ephemeral wave of prosperity is hollow to the core; in fact, if inflation is considered in the measurement of economic growth then this “recovery” is absolutely non-existent. It is much more likely that the triumphalism on part of the Trump administration and its allies in championing this nonsense is a mere ploy to reinforce the otherwise declining state of American exceptionalism. The US economy and its ruling social order has been in an increasingly vulnerable state – especially since the 2008. Like the rate of profit, the overall trend

³⁰⁸ Roberts 2016; Roberts 2018.

in the US empire is a depressing one – a trend that fluctuates, but one which evinces an overall long-term secular decline.³⁰⁹

Today, the US has higher levels of fictitious capital and private debt than during the 2000s credit boom (again, see Figure 30). Many non-financial corporations have become even more financialized in order to ameliorate capitalism's deep economic malaise. Some economists speculate that it is only a matter of time until a chain-reaction of debt crises break out across the globe (perhaps, first in Turkey), or that some monstrous and unknown debt bubble will burst without warning. Some others believe that the decay of the nation-state system and the subsequent geopolitical turmoil it sparks will be the trigger for some global economic catastrophe.

For instance, over the last year the phrase 'trade war' began looming as a result of the various tariffs imposed by Trump in the effort to offload the US's own problems. Instead of working with them, Trump's attempt to redefine exchange relations at his partners' detriment is another example of how the ruling elites of a nation will attempt to solve falling profits at the expense of other nations. This shift away from trade liberalization and globalization towards national chauvinism and trade war is not new but a perverse reaction to the failures of capitalism and an unfortunate and rather frightening step in the direction of fascist authoritarianism. Indeed: "fascism is nothing else but capitalist reaction," as the great Marxist revolutionary Leon Trotsky stated in 1932.³¹⁰

With such a volatile, parasitic and ultimately uncoordinated economic system certainty in the short term is not probable. The structural instability that comes with such extreme levels of

³⁰⁹ On the one hand, the Federal Reserve's February Blue Chip Economic Indicators survey stated a rough 19 percent probability of a recession in 2018. On the other hand, Michael Roberts' blog indicated that Roberts sees a potential recession surfacing in late 2019 to 2020. Sometime in 2019 or 2020 seems more likely.

³¹⁰ Trotsky 1993, no page.

debt, inflation, with finance driven imperialism, alongside negligent political leaders, and combined with the fact that *Financial Times* reports a shift in the emerging market index away from ‘bull market’ to ‘bear market’ conditions as of August 2018, all surely implies that a crisis could hit any day.³¹¹

Nevertheless, if my calculations for the Kondratieff wave-cycle (see Figure 27) indicate anything – albeit, even crudely – there should be a transition from a long wave of decline to a long wave of expansion around 2018-21, probably following the next recession. Following suit, the upswing should continue to 2030-31 before it shifts again to another downswing sometime between 2031-38. While regular crises occur during both the upswing and downswing of the wave-cycle, this implies that a deep, *more severe crisis* – and therefore an opportunity to further heighten the class struggle – will strike sometime in the mid- to late-2030s, perhaps landing the US back in another long depression.³¹²

From the wide-ranging theoretical and empirical results of this project, and the subsequent implications of such, some general conclusions can be drawn about both the evolution of Marxist scholarship since the birth of Marx as well as the evolution of US capitalism since the second World War. Many of these conclusions are summarized in the conclusion to chapter three as well as chapter four – specifically, Part II of the latter. To reiterate, Marx’s fundamental prognosis about capitalism’s historical trajectory – depicted by a falling average rate of profit accompanied by a rising organic composition of capital – appears empirically valid when ‘tested’ against the concrete evolution of US capitalism over a 66-year period.³¹³

³¹¹ *Reuters*, August 15 2018: <https://www.reuters.com/article/us-emerging-markets-stocks-bear/emerging-market-stocks-in-bear-territory-after-20-percent-drop-since-january-idUSKBN1L01UZ>.

³¹² There are several limitations to a crude approach such as this, so any indicators of crises should be understood as a rough approximation of how a capitalist economy may unfold.

³¹³ Scores of evidence exists proving Marx’s forecast of a falling ARP met with a rising OCC valid for many capitalist counties around the globe. This also goes for his other forecasts, such as the ‘law of accumulation’. See Carchedi and Roberts upcoming edition of *World in Crisis* (2018) and Roberts new 2018 book: *Marx.200*.

In sum, this study engaged in a value-theoretical reconceptualization of a national accounting system which categorizes aggregate prices in the NIA in terms of ‘values’ *à la* Marx. Through an original *re-specification* of Marx’s concepts for purposes of empirical research, this study demonstrated not only the contemporary relevance of the Marxist paradigm, but also established that the US economy – at least, from the standpoint of the socially necessary conditions of ‘actual’ valorization – descended into a depressionary environment following the Great Stagflation of the 1970s. A novel feature of this study is the way in which it framed Marx as an *underproductionist* in his account of the origins of capitalist crisis: an “underproductionist” in the sense that Marx regards capitalist crises as stemming fundamentally from inadequate levels of surplus-value production relative to capital investment. This study suggested some innovative methods of measuring ‘systemically necessary unproductive labour’, the ‘composition of output’ and economic growth alongside Marx’s fundamental value-ratios – namely, the rate of surplus value, the organic composition of capital and the average rate of profit. It also proposed a unique procedure for distinguishing between components of financial profit resting on surplus-value production from ‘fictitious’ components deriving from relations of credit/debt. Proceeding from Marx’s tendential law of the equalization of profit rates, the fictitious profits booked by the financial sector and registered in the US National Income Accounts are eliminated via ‘normalization’ – that is to say, leveling – the financial sector’s profit rate with the average rate prevailing in the rest of the economy.

The main limitations to this study are with the raw data. There are various problems with national income and accounting data and the measurement of GDP. Additional problems and various theoretical quandaries arise when utilizing an entirely bourgeois data set in the attempt to operationalize Marx’s variables. One major statistical problem that presented itself during data

collection was that in order to calculate Marx's fundamental value categories some proxies must be made. For example, when estimating the unproductive wage-bill I include the employment costs of *finance, insurance, real estate, legal services, wholesale, general government, business services and other miscellanies services* as components of 'systemically necessary unproductive labour' (SNUL). Due to the NIA methodology, not all of these workers are actually reflective of the costs associated with SNUL. This formulation unavoidably captures elements of the productive workforce (and perhaps other labour types such as supervisory labour) as well, just like my calculation for productive labour (variable capital) unavoidably captures elements of the SNUL workforce. Thus, the exploration of new, innovative methods in the segregation of the national wage-bill into its respective Marxian categories or finding a more expansive and accurate data set is in need.

What is more, the Marxist theoretical approach is also under-theorized in regard to the unpaid labour of domestic workers and some other forms of surplus labour such as "luxury" expenses.³¹⁴ When talking about various political and economic structures and social reproduction, Marxist theory is concerned with *the mode of production*, and hence capitalism (i.e., the reproduction of capital). This study therefore gives primacy to the reproduction of capital as the dominant form of social reproduction while acknowledging that other, more general forms exist.

Moving forward, a number of crucial questions and research possibilities posed by this study require attention. The procedure of 'capturing' as accurately as possible the performance of aggregate surplus labour (or, 'actual' surplus-value) has become increasingly arduous owing to the proliferation of volumes of fictitious capital incorporated in bourgeois national income and

³¹⁴ See, for example, the work of some feminist scholars in regard 'domestic slave labour' such as Luxton 1986 or Mies 1999.

accounting data. Thus, in the ‘era of fictitious capital’ a growing portion of booked income and booked corporate profits diverge from the ‘actual’ magnitude of currently produced new and surplus-value. To better ‘capture’ the actual magnitudes of surplus-value produced in a given year, I include the elite wage-bill of the top 0.1% by income as a component of my surplus-value estimation. This procedure also requires that I subtract the top 0.1% by income from either two of the Marxian value categories (that is, to maintain Marx’s value-theoretic of total value output $= c + v + s$). However, as Dumenil and Levy argue, the incomes above the top 5% serve to inflate what is supposed to be restricted to workers’ wages.³¹⁵ In contrast, however, Smith and Butovsky include the top 1% by income as a component of surplus-value and therefore subtract it from variable capital; but as a result, adding this greatly inflates their surplus-value estimation, pushing the trend in their profit rate upwards. While the omission of the top 5% of wage earners may be necessary to better estimate the wage-bill associated with the actual proletarian work force, I am afraid that adding the top 5% to surplus-value would result in an estimate irreflective of the performance of ‘actual’ surplus labour.

Additionally, this study also contains a critique of the canonical specification of unproductive expenses as a deduction from surplus-value. In turn, the Mage-Smith ‘constant capital overhead cost’ approach was presented as an alternative that further complicated the productive-unproductive labour distinction, raising the question of what labour is exactly ‘systemically necessary’ and what labour is just ‘unproductive’ (that is, from the standpoint of the social capital). Contrary to Moseley’s thesis, I established that the negative impact on profitability from a rising composition of capital is greater than from the relative growth in SNUL, at least in the case of the US economy.

³¹⁵ See Appendix B.b for data on the wage-share less the top 5%.

Another question arises concerning the protracted dip in the Kondratieff wave's 1970s downturn. As Figure 27 is measured in the price of gold rather than in national currency, perhaps the move away from the gold standard is the reason behind the depth of the dip? Or, can this dip be caulked up to just slowing economic dynamism or is it due to inflation and the subsequent 'Volcker Shock' at the time? The countertendencies to Marx's law are of the utmost importance, but this discussion is limited because its focus is rooted in the validity of Marx's law itself and what it can explain rather than a theoretical and empirical discussion of the countertendential forces. It is important to note that *scale* must be properly conceptualized because, as Marx's saw himself, capitalism is a global system demarcated by an international division of labour. Thus, the countertendencies have a global dimension when countries are connected via the world market, meaning that the US's ARP is heavily influenced by various countertendencies (overpopulation, increased exploitation, etc.) in peripheral countries. More often than not, Marx's law of profitability is temporarily arrested within "advanced" countries that hold hegemony over the world market – such as the US – due to countertendencies which emerge in other countries. This is yet another limitation with the data; that Marx's law and the capitalism system is a global system, but national income data is restricted to the nation/state level.

Although, over 150 years have passed since the publication of *Capital* and Marx's initial observations of the working conditions of 19th century industrial capitalism in Germany, France, and England, the ideas of Marx and Engels are astonishingly more pertinent today than ever before. But the system of ideas known as Marxism is constantly falsified and misrepresented by the apologists and defenders of the ruling social order. Marx's genuine struggle for human freedom, for socialism, for worker democracy, have been tendentiously and dishonestly

identified with its polar opposite. The defenders of the bourgeois order smeared Marx's name in the defense of bureaucratic dictators, ruthless state apparatuses and poor conceptions of "human nature."³¹⁶ What the critics miss is that bureaucratic dictators, ruthless state apparatuses and poor conceptions of "human nature" are all products of capitalist ideologues and agents, not Marx, and certainly not the future world that he envisioned.

And although a work of science, many firmly believe that the literary dimensions of Marx's *Capital* should not be overlooked as it stands out amongst the giants of the 19th century – a *literary giant*, which reads like a lengthy 'gothic novel whose heroes are enslaved and consumed by the monster they created'.³¹⁷ As its subtitle declares, the work of *Capital* is a *critique* of classical political economy; and as such, it remains today an 'inexhaustible source of stimulation' to those who seek a deeper, scientific understanding of social reality, illuminating a path out of our current predicament and into a new egalitarian-socialist world.³¹⁸ And as the object of its critique is ever evolving, the work of *Capital* will always remain incomplete. Hence, the work of subsequent Marxists is to pick up and continue where Marx and Engels left off.

³¹⁶ Smith 1998.

³¹⁷ *The Guardian* July 8, 2006; Spencer 2013, p. xxiii.

³¹⁸ Mehring, quoted in Smith 1984, p. 3.

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Appendix

Part A: Data Sources and Methods

Primary data was collected from the US National Income Accounts (NIA): <https://apps.bea.gov/iTable/iTable.cfm?reqid=19&step=2#reqid=19&step=2&isuri=1&1921=survey>, from both NIPA and Fixed Assets tables; US Bureau of Labour Statistics; Saez-Picketty (2015); Anwar Shaikh (2016); and Michael Roberts (2017).

1. *Constant Capital Stock (C)*: The current-dollar value of non-farm, Net Capital Stock in Private Fixed Assets (inclusive of the productive and unproductive spheres), NIPA Table 6.1, line 2. Non-FIRE assets, line 14.

Historical Cost Valuation of Net Capital Stock in Private Fixed Assets (inclusive of both spheres), Table 4.1, line 1. FIRE assets, line 33.

Figures imputed for each year correspond to the end of the prior year (i.e., 1949 figure is imputed for the 1950 year).

2. *Annual flow of Surplus-Value*: The sum of profits, interest, rent and elites' salaries measured as after-tax domestic corporate profits from NIPA Table 1.14, line 33, plus the after-tax earnings of the top one-tenth of national income (the top 0.1%), the latter drawn from Saez-Picketty (2015). Before-tax, line 32.

Non-FIRE *s*: before-tax, line 37 and after-tax, line 38.

'Normalized' *s* (i.e., *s* less fictitious elements embedded in FIRE-profits): following the procedure in chapter three, in order to better 'capture' the actual performance of surplus labour I attempt to formulate a more accurate estimation of surplus-value by normalizing annual financial profits. 'Normalized surplus-value' is the sum of after-tax corporate profits + the top 0.1% income *and minus* what is estimated as FIRE sector's FC.

3. *Annual flow of Variable Capital (v)*: The after-tax income (total wages and salary accruals) of all 'productive workers'. Hence, *v* is taken from NIPA Table 6.3 A B / C D *minus* SNUL *and minus* the top 0.1% by income. In turn, this yields the closest approximation that I know of the productive labour force.

Tax-Rate: All data on wages are recorded before-tax, so a crude tax rate was necessary. Average annual taxation was applied to *before-tax wages and incomes* by using an 'approximate tax-rate' measured as personal current taxes (Table 3.1, line 3) to current income (Table 1.14, line 4).

4. Systemically Necessary Unproductive labour (SNUL/S): The after-tax income of those workers necessary for the system's reproduction and employed by unproductive capital, including NIPA Table 6.3 wholesale, line 52 / 35, legal services, line 70 / 66, business services, line 65 / 75% of 68[*], general government, line 75 / 86, and miscellaneous

services, line 73+74 / see *.

* is used as a proxy since NIA's imputation changes in C and D listings.

5. *Annual flow of Constant Capital (cf)*: All other operating costs inherent to capitalist valorization (inclusive of taxation, inventories, the SNUL wage-bill, depreciation, energy, etc.), measured as non-farm total output (such as GDP or MGO) *minus* variable capital *and minus* surplus-value.
6. Productive Capital: Unlike most others, I *do not* use manufacturing as a proxy for productive capital or labour. Instead, for productive capital, I include all non-farm domestic private enterprises in the corporate sector *less* general government, legal services, business services, wholesale, retail trade and the FIRE sector.
7. Marxian Gross Output (MGO): or, "Normalized GDP" = GDP from NIPA Table 1.1.5, line 1, *minus* FIRE's fictitious capital (FC).

In constant 2009 dollars: NIPA Table 1.5.3, line 1 (index numbers).

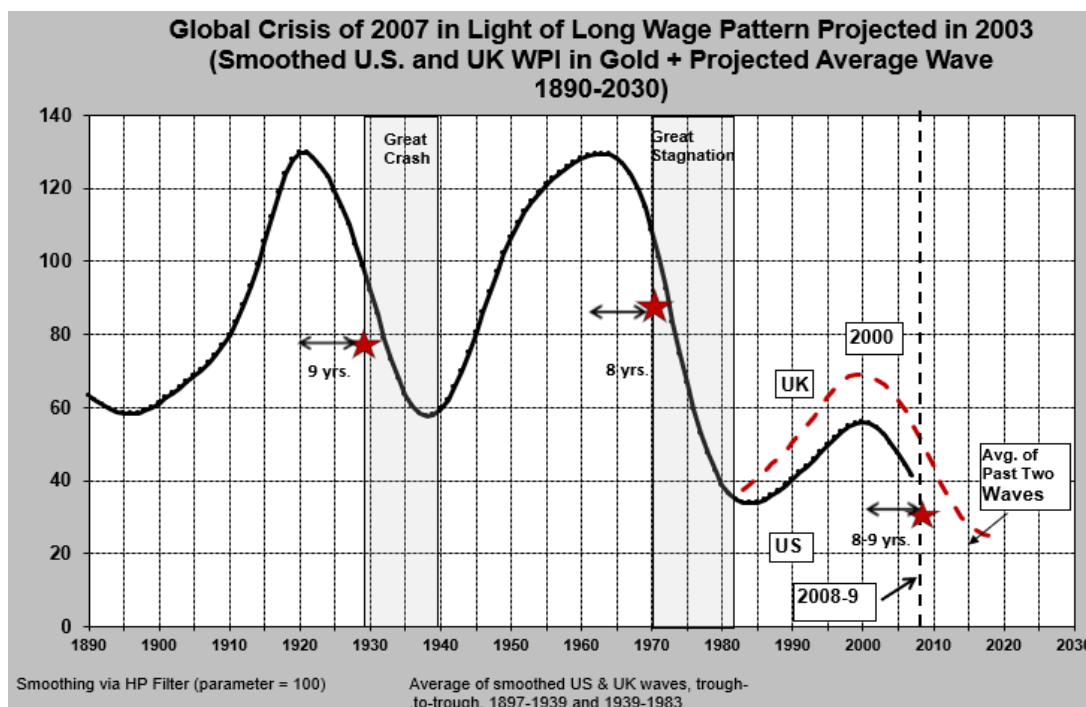
8. Capital Accumulation (CA): The current-dollar value of non-farm, Net Capital Stock in Private Fixed Assets (inclusive of the productive and unproductive spheres) in constant 2009 dollars, NIPA Table 6.2, line 2 (index numbers).
9. Elite/Top National Income Shares (i.e., top 5%, 1% and .01%): Saez-Piketty excel dataset Table A.1, row 2, 3, 5 (2015), retrieved from <https://eml.berkeley.edu/~saez/>.

No 2016 data is available, so as a proxy the inflation-rate is added to the 2015 datum for the 2016 year.

10. Finance capital (the FIRE sector): Inclusive of costs associated with Finance, Insurance, and Real Estate.
11. Debt-Ratio: A nations debt-ratio is GDP / private debt. See Steve Keen 2012 at http://keenomics.s3.amazonaws.com/debtdeflation_media/2012/01/TheDebtwatchManifesto.pdf.
12. Kondratieff wave: Data for the Kondratieff wave-cycle (in price of gold) was taken from Shaikh (2016) 5.3 Data Tables, DATALRprices row x, retrieved from <http://realecon.org/data/>.

My forecast (in Fig. 27) followed Shaikh's procedure of taking the average of the past two waves to approximate the next. Smoothing via 10-yr rolling average/ HP filter = 100.

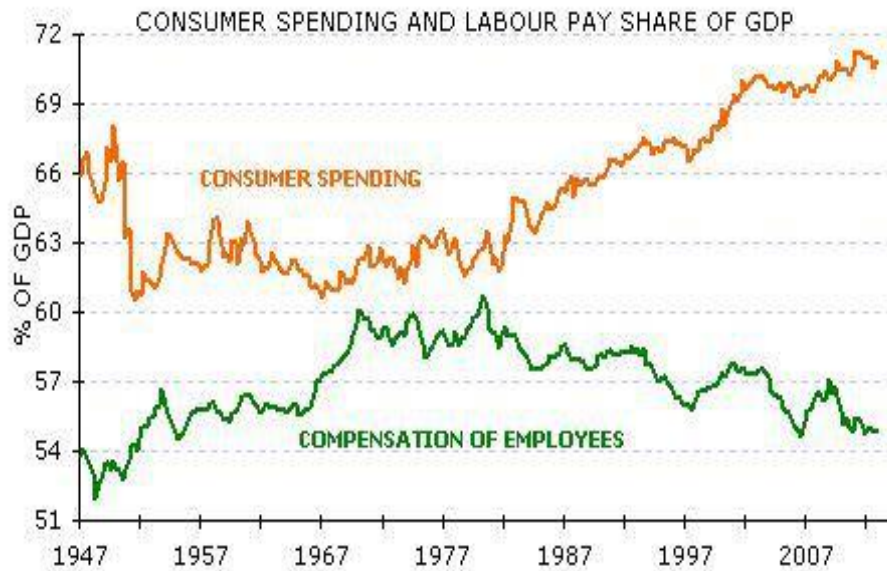
See below for Shaikh's formulation (2016, p. 749) – or the figure 17.1 in excel sheet 5.3:



Source: Above.

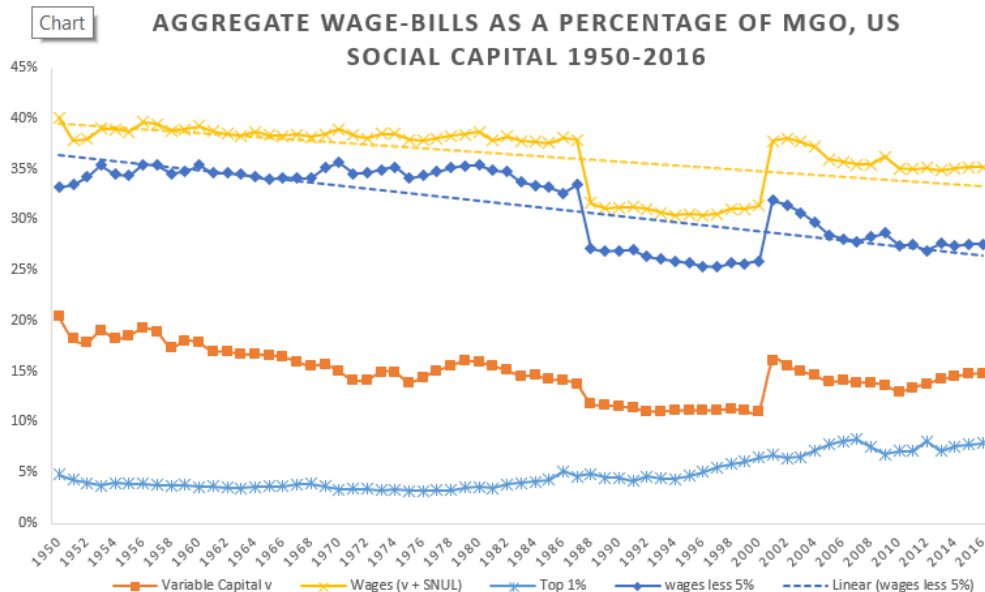
Part B: Supplementary Materials

- a) The rationale behind the underconsumptionist or “overproductionist” position on the question of crisis is that the US is a ‘consumer-based economy’ with over 70 percent of spending done by households. While employee compensation as a percentage of GDP did fall over the neoliberal period, it was supplemented by a massive expansion of relations of credit and debt to maintain and even increase consumer spending. In order to illustrate the relationship between rising levels of consumer spending *and* falling wages, the figure below by Michael Roberts shows that wages have declined while consumer spending has actually increased up to 2008. By the early 1980s, consumer spending shot up while compensation shot down; thus, consumer spending did not decline before the crisis. If anything, it actually accelerated, and thus it is impossible that the 2008 crisis was caused by a lack of spending.



Source: <https://thenextrecession.wordpress.com/2014/08/13/inequality-the-mainstream-worry/>

- b) Contrary to what Kliman argues, a more accurate representation of working-class wages is one which removes the top 5% by income, and this way ‘workers wages’ (blue) declines substantially over the period of study. In contrast, the top line (yellow) only removes incomes associated with the top 0.1%.



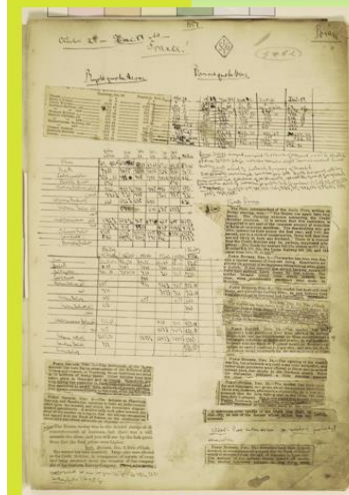
Source: Author (NIA).

- c) Example of Marx's empirical work: take the figure below from the MEGA project of Marx's empirical research in the wake of the 1857 crisis with an attempt to transcribe using modern computation.

Bankruptcies

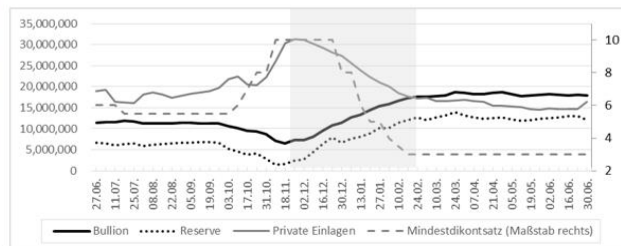
		London failures.	Failures.
(2 (Wednesday) Dec.)	Dec.	1) Hirsch, <u>Strother</u> et Co (Produce trade)	60,000
		2) Mendes da Costa, and Co. General Merchants. (Brazilian Trade)	300,000
3 Dec.	Dec.	3) <u>Kieser</u> and Co. (German House)	50,000
			410,000
4 Dec.	Dec.	4) Bovet (China (i. e. silk and German trade) vom fall in silk prices)	
		5) Jonas and Co. (Swedish trade)	100,000
		6) W. <u>Wieler</u>	
5 Dec.	Dec.	7) Sewell and Neck (Northern trade)	(about) 500,000
(Monday) 7 Dec.	Dec.	8) Albert Pelly and Co (Norwegian trade)	170,000
		9) Krell and Cohn (German trade)	100,000
		10) Lichtenstein and Co. (ditto)	80,000
8 Dec.	Dec.	(11–16) (Nämlich 4 failures am Stockexchange, 2 am 7 ^{ten})	
		17) Hadland and Co (Manchester trade)	40,000
		18) Couvella and Co (Greek merchants)	
		19) Baird and Co (Australian Merchants, will wind up under inspection.	
		20) Stobart and Co	
9 Dec.)	Dec.)	21–22 2 more failures on the Stockexchange.	
10 Dec. (Thursday)	Dec.	No failures.	

MARX' CRITIQUE OF CAPITALISM DURING THE WORLD ECONOMIC CRISIS OF 1857



Money Market

Source: The Economist



Source: Hecker (Berlin – PP), 2017.